



The JUWO Evolved SmartWall™ Thermoplan Clayblock System

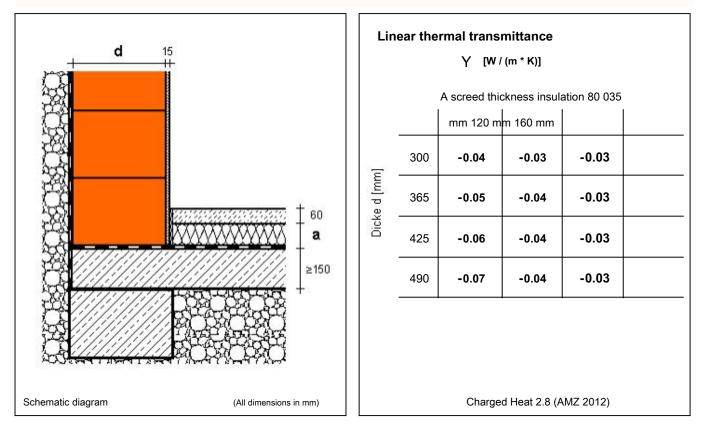
Monolithic Clay Block Building System

**JUWÖ POROTON

Wöllstein Ziegelhüttenstr. 40-42

KG-floor inside insulated basement wall HLz

No. 10100



The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and a thickness of the screed insulation. The Psi-values are for thermal conductivities of the basement masonry $\leq 0.14 \text{ W} / (\text{mK})$. The temperature correction factor FBW and Fbf or Fg is 0.6.

OK base plate is approximately 2 m below the surface. The thermal conductivity of the screed insulation is 0.035 W / (m K). The system boundary of the base plate below the floor insulation on the soffit.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 1 is for psi values <= 0.04 W / (m K), where in principle, for higher values in accordance with paragraph 3.5 a) and b) also..

KG-floor interior insulated, HLz 300 with perimeter insulation

**JUWÖ POROTON

Wöllstein Ziegelhüttenstr. 40-42

Linear thermal transmittance 300 < 160 15Y [W / (m * K)] A screed thickness insulation 80 035 mm 120 mm 160 mm -0.03 0.00 0.01 0.16 Х _{ШW} [VV/(m•K)] 0.24 0.01 0.03 0.03 60 a 0.33 0.04 0.06 0.07 ≥150 0.5 0.05 0.07 0.07 Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficient takes place in dependence of different thicknesses a the floor insulation and of different thermal conductivities of the basement masonry with the wall thickness 300 mm. The temperature correction factor FBW and Fbf or Fg is 0.6.

OK base plate is approximately 2 m below the surface. The thermal conductivity of the perimeter insulation is = 0.04 W / (mK), the thermal conductivity of the screed insulation 0.035 W / (mK). The system boundary of the base plate below the floor insulation on the soffit. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 4 is given.

KG-floor interior insulated, HLz 365 with perimeter insulation

**JUWÖ POROTON

Wöllstein Ziegelhüttenstr. 40-42

Linear thermal transmittance 365 < 160 15Y [W / (m * K)] A screed thickness insulation 80 035 mm 120 mm 160 mm -0.05 -0.02 -0.01 0.14 λ_{mw}[\/\/(m•K)] 0.24 -0.01 0.02 0.03 60 a 0.33 0.03 0.06 0.06 ≥150 Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficient takes place in dependence of different thicknesses a the floor insulation and of different thermal conductivities of the basement masonry with the wall thickness 365 mm. The temperature correction factor FBW and Fbf or Fg is 0.6.

OK base plate is approximately 2 m below the surface. The thermal conductivity of the perimeter insulation is = 0.04 W / (mK), the thermal conductivity of the screed insulation 0.035 W / (mK). The system boundary of the base plate below the floor insulation on the soffit. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

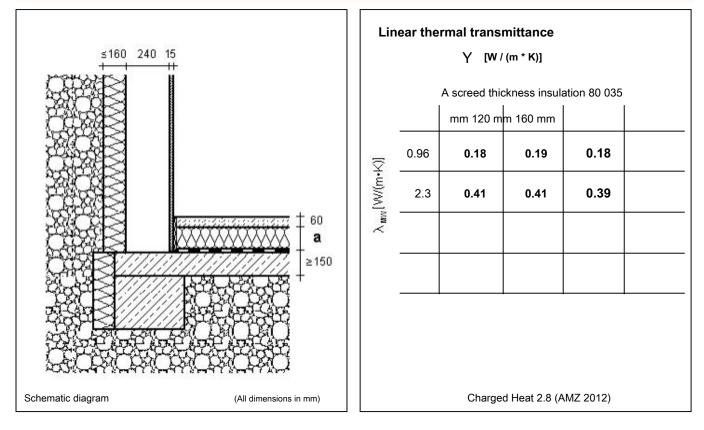
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 4 is given.

**JUWÖ POROTON

Wöllstein Ziegelhüttenstr. 40-42

KG-floor interior insulated, concrete basement

No. 10300



The calculation of the length-based heat transfer coefficient takes place in dependence of different thicknesses a the screed insulation. The thickness of the basement wall is 240 mm and is available as heavy brick masonry or reinforced concrete. The temperature correction factor FBW and Fbf or Fg is 0.6.

OK base plate is approximately 2 m below the surface. The thermal conductivity of the vertical perimeter insulation is = 0.04 W / (mK), the insulation of the screed 0.035 W / (mK). The system boundary of the base plate below the floor insulation on the soffit. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

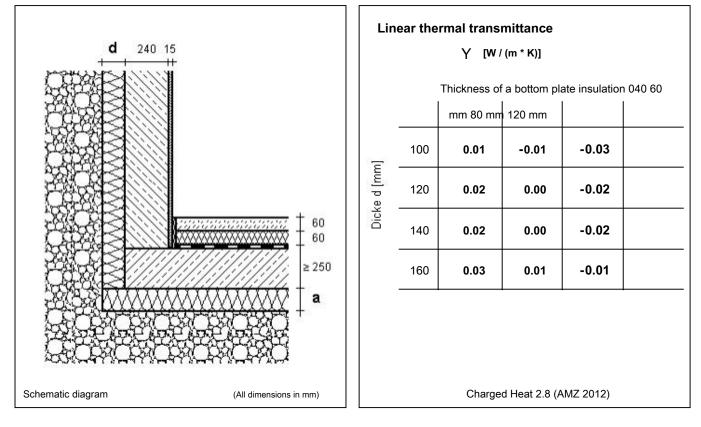
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 7 is provided.

Wöllstein Ziegelhüttenstr. 40-42



KG-floor exterior insulation, concrete basement

No. **10400**



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses of the perimeter insulation d and the outer bottom panel insulation a. 240 mm different concrete thicknesses have a minor influence on the Psi-value. The temperature correction factor FBW and Fbf or Fg is 0.6.

OK base plate is approximately 2 m below the surface. The thermal conductivity of the vertical perimeter insulation and the horizontal floor slab insulation is 0.04 W / (m K). The system boundary of the bottom plate is located below the horizontal base plate arranged outside insulation.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 9 is given in accordance with paragraph 3.5 a) and b)...

innenged baseplate., AW HLz with edge insulation

****JUWÖ** POROTON

No. 20100

Wöllstein Ziegelhüttenstr. 40-42

20 d 15 Linear thermal transmittance + H 100 Y [W / (m * K)] Thickness d of the outer wall 300 mm Außenwand 490 mm 365 mm 425 mm 80 -0.17 -0.17 -0.18 -0.19 60 Dicke a [mm] a Ψ 120 -0.12 -0.12 -0.12 -0.13 ≥150 160 -0.09 -0.09 -0.10 -0.10 Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d of the masonry and the thicknesses a of the screed insulation. The 100 mm thick base insulation (frost apron) has a thermal conductivity of 0.04 W / (mK), the insulation of the screed 0.035 W / (mK). The system boundary of the base plate below the floor insulation on the soffit.

The calculation results are valid for thermal conductivities of the outer walls of 0.07 to 0.14 W / (m K).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 10 is given.



Wöllstein Ziegelhüttenstr. 40-42

innenged baseplate., AW HLz without border insulation 20 d 15 Linear thermal transmittance ++ 1 d/3 Y [W / (m * K)] + +Thickness d of the outer wall 300 mm Außenwand 365 mm 425 mm 490 mm 80 -0.04 -0.05 -0.06 -0.08 60 Dicke a [mm] a 120 -0.03 -0.04 -0.05 -0.06 ≥150 160 -0.03 -0.04 -0.04 -0.05 Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d of the masonry and the thicknesses a of the screed insulation. There is no ice wall / base insulation available. Before the end of the bottom plate is a heat insulation thickness of d / 3 is arranged. This has a thermal conductivity of 0.04 W / (mK), the insulation of the screed 0.035 W / (mK). The system boundary of the base plate below the floor insulation on the soffit.

The calculation results are valid for thermal conductivities of the outer walls of 0.07 to 0.14 W / (m K).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 10 is for Psi-values <= - 0.05 presumed to exist for overlying values Estrichdämmdicken> = 100 mm and masonry of the Wansddicke> = 365 mm in accordance with paragraph 3.5. a) and b) also.

außenged baseplate., AW HLz with edge insulation

****JUWÖ** POROTON

Wöllstein Ziegelhüttenstr. 40-42

20 d 15 Linear thermal transmittance + H 100 Y [W / (m * K)] Thickness d of the outer wall 300 mm Außenwand 490 mm 365 mm 425 mm 60 -0.06 -0.06 -0.07 -0.07 60 Dicke a [mm] 60 Ψ 80 -0.02 -0.03 -0.03 -0.03 ≥150 120 0.04 0.03 0.03 0.03 а Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d of the masonry and the thicknesses a of the bottom plate insulation. The 100 mm thick base insulation (frost apron) and the bottom plate insulation have a thermal conductivity of 0.04 W / (mK). The system boundary of the base plate below the floor insulation to the slab!

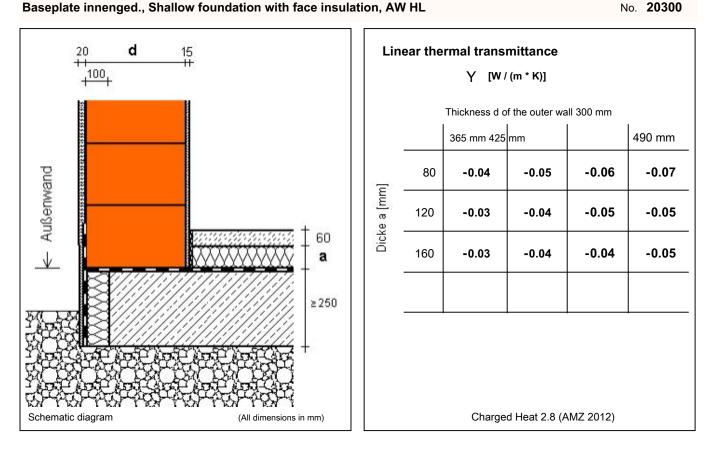
The calculation results are valid for thermal conductivities of the outer walls of 0.07 to 0.14 W / (m K).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 11 is given.

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Wöllstein Ziegelhüttenstr. 40-42



The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d of the masonry and the thicknesses a of the screed insulation. The base plate is designed as a flat foundation.

The 100 mm thick insulation end of the bottom plate has a thermal conductivity of 0.04 W / (mK), the screed insulation 0.035 W / (mK). The system boundary of the base plate below the floor insulation on the soffit.

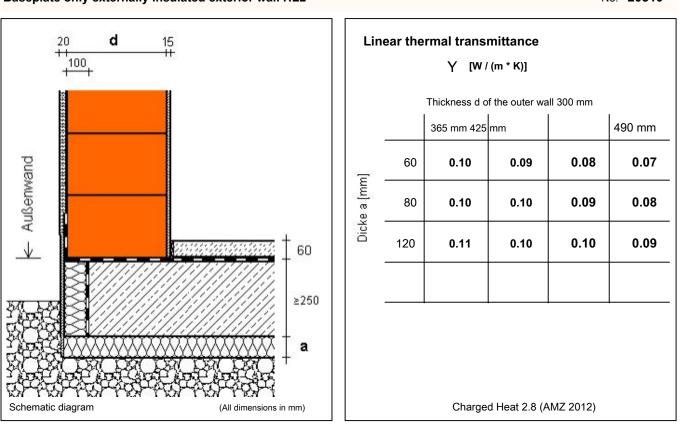
The calculation results are valid for thermal conductivities of the outer walls of 0.07 to 0.14 W / (mK).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 image 10 is 0.05 W / (m K), where in principle for psi values <=, for overlying values in accordance with paragraph 3.5 a) and b) also..



Wöllstein Ziegelhüttenstr. 40-42



Baseplate only externally insulated exterior wall HLz

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d of the masonry and the thicknesses a of the outer bottom panel insulation. The base plate is designed as a flat foundation. The 100 mm thick insulation end of the bottom plate as well as the lower-side base plate insulation has a thermal conductivity of 0.04 W / (mK). A loft insulation is not available (commercial). The system boundary of the base plate is located on the bare floor. The calculation results are valid for thermal conductivities of the outer walls of 0.07 to 0.14 W / (mK).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 image 12 is 0.08 W / (m K), where in principle for psi values <=, for overlying values in accordance with paragraph 3.5 a) and b) also..

J

Wöllstein Ziegelhüttenstr. 40-42

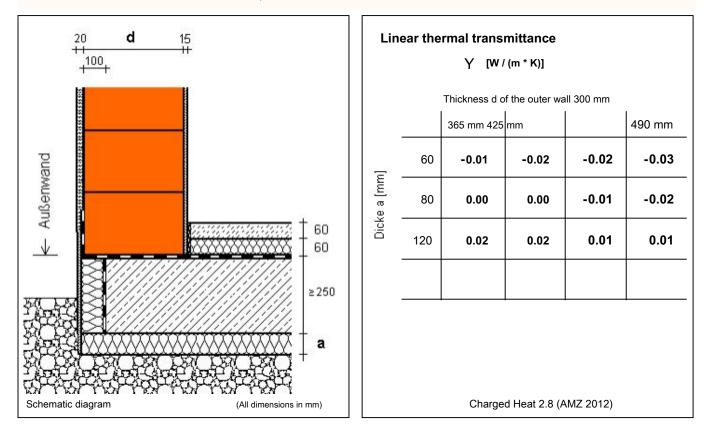
The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d of the masonry and the thicknesses a of the outer bottom panel insulation. The base plate is designed as a flat foundation. The 100 mm thick insulation end of the bottom plate as well as the lower-side base plate insulation has a thermal conductivity of 0.04 W / (mK). The system boundary of the base plate below the floor insulation on the soffit.

The calculation results are valid for thermal conductivities of the outer walls of 0.07 to 0.14 W / (mK).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 12 is given.

JUWÖ POROTON-Werke Ernst Jungk & Sohn GmbH 55597



indoor floor slab and exterior insulation, exterior wall HLz



Wöllstein Ziegelhüttenstr. 40-42

10

+

100-200

Baseplate internal and external insulation, AW with EIFS

++

175-240 15

Thickness of a bottom plate insulation 040 60 Außenwand mm 80 mm 120 mm -0.04 0.00 0.06 0.16 λ_{mw}[\\\\(m•K)] 60 60 ψ 0.33 -0.01 0.03 0.09 ≥150 0.5 0.01 0.05 0.11 а 0.96 0.06 0.10 0.16 Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

Linear thermal transmittance

Y [W / (m * K)]

The calculation of the length-based heat transfer coefficient takes place in dependence of different thicknesses a the bottom plate insulation and thermal conductivities of the rear masonry wall thicknesses of 175-240 mm.

The 100 mm thick base insulation (frost apron) and the bottom plate insulation have a thermal conductivity of 0.04 W / (mK). The system boundary of the base plate below the floor insulation on the soffit. The results are for thicknesses of the EIFS between 100 and 200 mm having a thermal conductivity of 0.035 W / (mK).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 14 is given.

Baseplate internal and external insulation, AW with EIFS - extra insulated



Baseplate domestic and außenged., AW with EIFS + Kimmschicht

**JUWÖ POROTON

Wöllstein Ziegelhüttenstr. 40-42

10 175-240 15 Linear thermal transmittance +100-200 Y [W / (m * K)] Thickness of a bottom plate insulation 040 60 Außenwand mm 80 mm 120 mm -0.04 0.00 0.06 0.16 λ_{mw}[\/\/(m•K)] 60 60 ψ 0.33 -0.02 0.02 0.08 ≥150 0.5 -0.01 0.03 0.09 а 0.96 0.01 0.05 0.11 Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficient takes place in dependence of different thicknesses a the bottom plate insulation and thermal conductivities of the rear masonry wall thicknesses of 175-240 mm. In masonry thermal conductivities of about 0.3 W / (mK), the lowermost layer of brick is 0.3 W / (mK) designed as Kimmschicht with a vertical thermal conductivity <=.

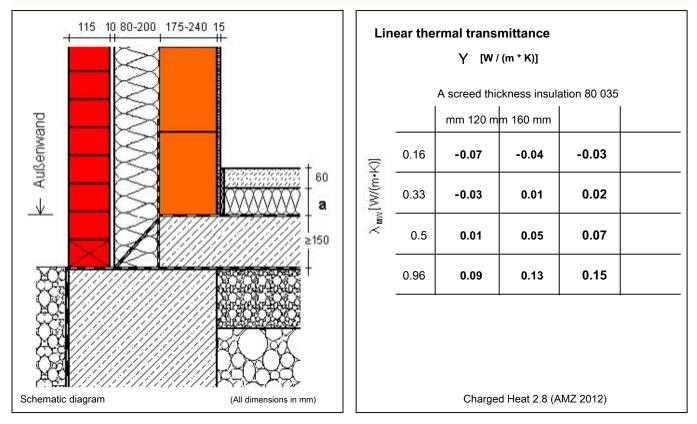
The 100 mm thick base insulation (frost apron) and the bottom plate insulation have a thermal conductivity of 0.04 W / (mK). The system boundary of the base plate below the floor insulation on the soffit. The results are for thicknesses of the EIFS between 100 and 200 mm having a thermal conductivity of 0.035 W / (m K).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 14 is given.



Baseplate innenged., AW with VMz + core insulation



The calculation of the length-based heat transfer coefficient takes place in dependence of different thicknesses a the floor insulation and thermal conductivities of the rear masonry wall thicknesses of 175-240 mm.

The screed insulation has a thermal conductivity of 0.035 W / (mK). The system boundary of the base plate below the floor insulation on the bottom plate. The results are for thicknesses of the core insulation between 80 and 200 mm having a thermal conductivity of 0.035 W / (mK). The psi values apply to thicknesses of the front brickwork> = 90 mm.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 16 is for psi values <= 0.1 W / (m K), where in principle, for higher values in accordance with paragraph 3.5 a) and b) also..

Baseplate innenged., AW + Kimmsch. with VMz + core insulation

Wöllstein Ziegelhüttenstr. 40-42



10 80-200 175-240 15 115 Linear thermal transmittance Y [W / (m * K)] A screed thickness insulation 80 035 mm 120 mm 160 mm Außenwand -0.07 -0.04 -0.03 0.16 λ_{mw}[\///(m•K)] 60 0.33 -0.04 -0.01 0.01 V а 0.5 -0.04 0.00 0.02 ≥150 0.96 -0.03 0.01 0.03 Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficient takes place in dependence of different thicknesses a the floor insulation and thermal conductivities of the rear masonry wall thicknesses of 175-240 mm. In masonry thermal conductivities of about 0.3 W / (mK), the lowermost layer of brick is 0.3 W / (mK) designed as Kimmschicht with a vertical thermal conductivity <=.

The screed insulation has a thermal conductivity of 0.035 W / (mK). The system boundary of the base plate below the floor insulation on the soffit. The results are for thicknesses of the core insulation between 80 and 200 mm having a thermal conductivity of 0.035 W / (mK). The psi values apply to thicknesses of the front brickwork> = 90 mm.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 16 is given.



115

Außenwand

V

Schematic diagram

Baseplate außenged., AW with VMz + core insulation

			Linear thermal transmittance Y [W / (m * K)]						
\bowtie					Thickness of	a bottom pla	ate insulation 0	40 60	
					mm 80 mm	120 mm			
\bigotimes			Q	0.16	0.09	0.12	0.17		
\bigotimes		† 60 60	λ _{MW} [\\//(m•K)]	0.33	0.14	0.17	0.21		
Ð		† ≥150	Х _{МИ}	0.5	0.17	0.20	0.25		
		a		0.96	0.24	0.27	0.31		
		Ŧ		I					
(All dimensions in mm)				Charged Heat 2.8 (AMZ 2012)					

The calculation of the length-based heat transfer coefficient takes place in dependence of different thicknesses a the bottom plate insulation and thermal conductivities of the rear masonry wall thicknesses of 175-240 mm.

The lower-side slab floor insulation has a thermal conductivity of 0.04 W / (mK). The system boundary of the base plate below the floor insulation on the soffit. The results are for thicknesses of the core insulation between 80 and 200 mm having a thermal conductivity of 0.035 W / (mK). The psi values apply to thicknesses of the front brickwork> = 90 mm.

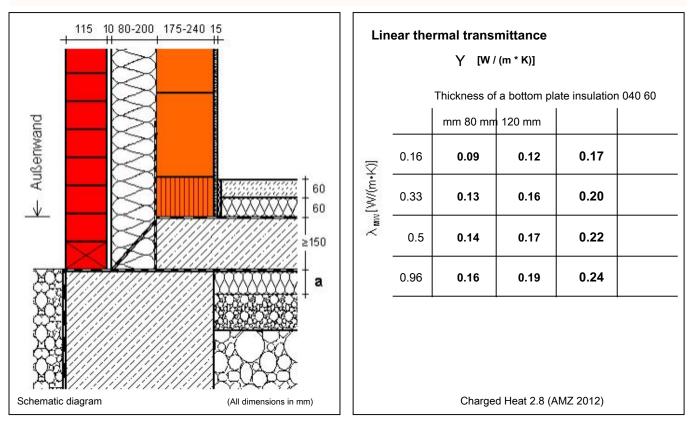
The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 14 is given.

Baseplate außenged., AW + Kimmsch. with VMz + core insulation

Wöllstein Ziegelhüttenstr. 40-42





The calculation of the length-based heat transfer coefficient takes place in dependence of different thicknesses a the bottom plate insulation and thermal conductivities of the rear masonry wall thicknesses of 175-240 mm. In masonry thermal conductivities of about 0.3 W / (mK), the lowermost layer of brick is 0.3 W / (mK) designed as Kimmschicht with a vertical thermal conductivity <=.

The lower-side slab floor insulation has a thermal conductivity of 0.04 W / (mK). The system boundary of the base plate below the floor insulation on the soffit. The results are for thicknesses of the core insulation between 80 and 200 mm having a thermal conductivity of 0.035 W / (mK). The psi values apply to thicknesses of the front brickwork> = 90 mm.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 14 is given.



d

20

+

Schematic diagram

H d/3

Socket AW HLz - Heated KG, with head insulation

15

Linear thermal transmittance Y [W / (m * K)] Thickness d of the outer wall 300 mm 490 mm 365 mm 425 mm 0.07 0.06 0.06 0.06 0.06 Х _{ШW} [VV/(m•K)] 0.09 0.06 0.06 0.06 0.06 0.11 0.05 0.06 0.06 0.06 0.06 0.06 0.14 0.05 0.06

Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry. The SFL is about 0.5 m above the soil. The thermal insulation of the basement ceiling is limited to an impact sound insulation and balance between installations. The thickness of the insulation off the ceiling face is d / 3 having a thermal conductivity of 0.035 W / (mK). The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The values also apply to the basement walls with higher thermal conductivity than the EC masonry.

60

60 180

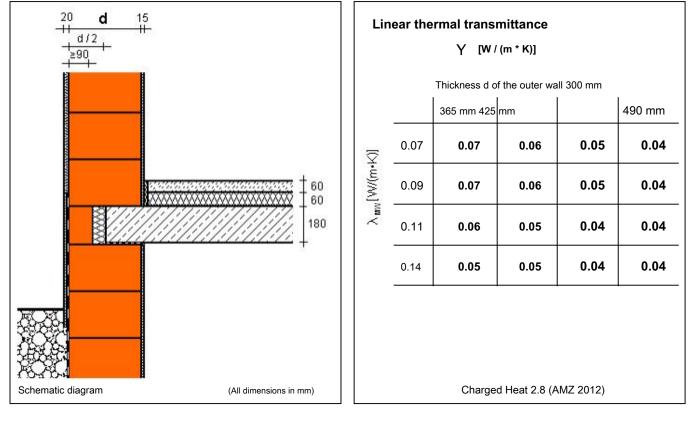
(All dimensions in mm)

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 25 is given.



Socket AW HLz - Heated KG, Abmauerziegel

No. **30100**



The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry. The SFL is about 0.5 m above the soil. The thermal insulation of the basement ceiling is limited to an impact sound insulation and balance between installations. The thickness of the insulation off the ceiling face is included Abmauerziegel about d / 2 with a thermal conductivity of 0.035 W / (mK). The thermal conductivity of Abmauerziegels has a negligible impact on the Psi - values.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The values also apply to the basement walls with higher thermal conductivity than the EC masonry. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 25 is given.



d

d/2

>90

15

20

Schematic diagram

Socket AW HLz - Heated KG, with high Abmauerziegel

Linear thermal transmittance Y [W / (m * K)] Thickness d of the outer wall 300 mm 490 mm 365 mm 425 mm 0.07 0.08 0.06 0.04 0.04 λ_{mw}[\///(m•K)] 0.09 0.07 0.05 0.04 0.03 0.11 0.06 0.04 0.03 0.03 0.14 0.05 0.03 0.02 0.02 Charged Heat 2.8 (AMZ 2012)

The calculation of length-based heat transfer coefficient is carried out in dependence of different wall thicknesses d and thermal conductivities of the brickwork. The SFL is about 0.5 m above the soil. The thermal insulation of the basement ceiling is limited to an impact sound insulation and balance between installations. The thickness of the insulation off the ceiling face is included Abauerziegel about d / 2 with a thermal conductivity of 0.035 W / (mK). The thermal conductivity of Abmauerziegels and height compensation tile has a negligible impact on the Psi - values.

(All dimensions in mm)

60 60 180

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The values also apply to the basement walls with higher thermal conductivity than the EC masonry. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 25 is for psi values <= 0.07 W / (m K), where in principle, for higher values in accordance with paragraph 3.5 a) and b) also..



d

20

≤65

H d/2

Schematic diagram

Socket AW HLz - Heated KG, Deckenabmauerelement

15

Linear thermal transmittance Y [W / (m * K)] Thickness d of the outer wall 300 mm 490 mm 365 mm 425 mm 0.07 0.06 0.06 0.06 0.06 λ_{mw}[\/\/(m•K)] 0.09 0.06 0.06 0.06 0.06 0.11 0.05 0.06 0.06 0.06 0.06 0.14 0.04 0.06 0.06 Charged Heat 2.8 (AMZ 2012)

The calculation of length-based heat transfer coefficient is carried out in dependence of different wall thicknesses d and thermal conductivities of the brickwork. The SFL is about 0.5 m above the soil. The thermal insulation of the basement ceiling is limited to an impact sound insulation and balance between installations. The thickness of the ceiling insulation behind the Deckenabmauerelement is included Abmauerelement d / 2 with a thermal conductivity of 0.035 W / (mK). The thermal conductivity of Abmauerelementes has a negligible impact on the Psi - values.

(All dimensions in mm)

60 60 180

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The values also apply to the basement walls with higher thermal conductivity than the EC masonry. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 25 is given.



d

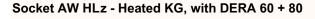
60 80

20

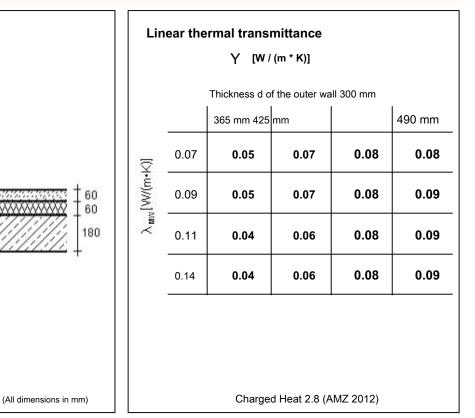
-++

Schematic diagram

No. 30410



15



The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry. The SFL is about 0.5 m above the soil. The thermal insulation of the basement ceiling is limited to an impact sound insulation and balance between installations. The thickness of the ceiling insulation behind the DERA Deckenabmauerziegel is 80 mm having a thermal conductivity $\leq 0.035 \text{ W} / (\text{mK})$.

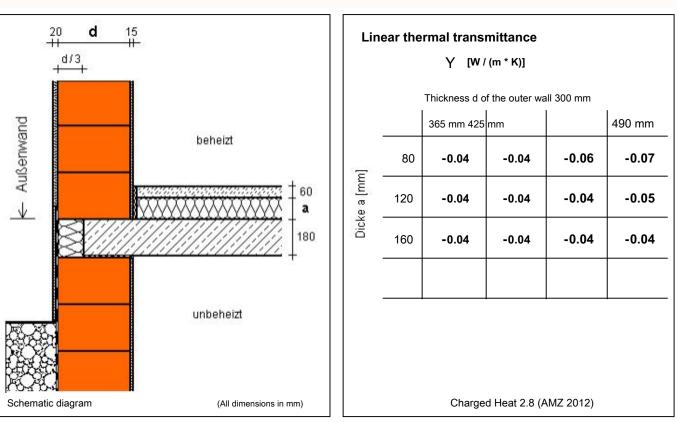
The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The values also apply to the basement walls with higher thermal conductivity than the EC masonry. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 25 is given.



No. 30450

Wöllstein Ziegelhüttenstr. 40-42



Socket AW HLz - unheated KG, with head insulation

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d of the outer masonry at EC and insulation thicknesses of a screed insulation. The unheated cellar has a temperature correction factor FG 0.6. The screed insulation has a thermal conductivity of 0.035 W / (mK). The 100 mm ceiling end insulation is carried out with a thermal conductivity of 0.035 W / (mK). The basement masonry is constructed of 300 mm HLzW, the thermal conductivity of the basement masonry is of secondary importance. The system limit the basement ceiling below the floor insulation on the soffit. The results are for thermal conductivities of the outer wall on the ground floor from 0.07 to 0.14 W / (mK).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 28 is -0.05 W / (m K), where in principle for psi values <=, for overlying values in accordance with paragraph 3.5 a) and b) also..

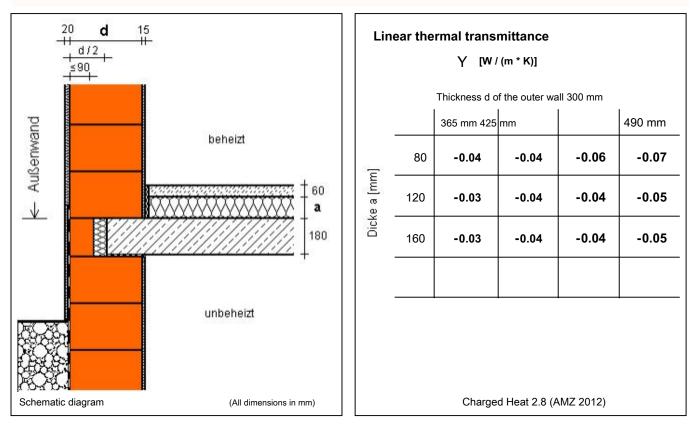
Page - 23 -

Socket AW HLz - unheated KG, Abmauerziegel



Wöllstein Ziegelhüttenstr. 40-42

No. 30550

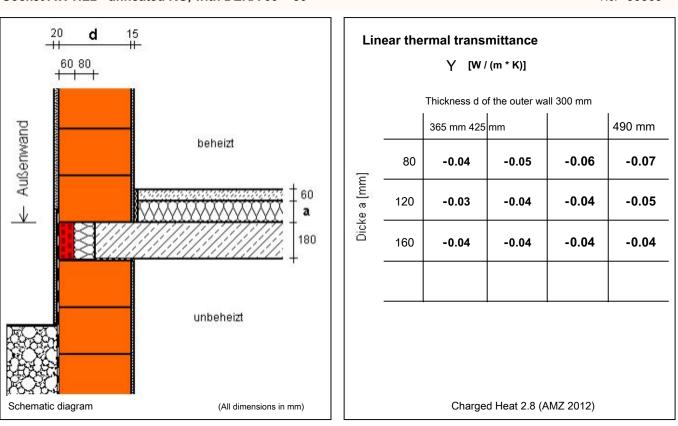


The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d of the outer masonry at EC and insulation thicknesses of a screed insulation. The unheated cellar has a temperature correction factor FG 0.6. The screed insulation has a thermal conductivity of 0.035 W / (mK). The thickness of the ceiling face insulation (035) is included Abmauerziegel d / 2. The basement masonry is constructed of 300 mm HLzW, the thermal conductivity of the basement masonry is of secondary importance. The system limit the basement ceiling below the floor insulation on the soffit. The results are for thermal conductivities of the outer wall on the ground floor from 0.07 to 0.14 W / (mK). The thermal conductivity of Abmauersteins has a negligible impact on the Psi - values.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 28 is -0.05 W / (m K), where in principle for psi values <=, for overlying values in accordance with paragraph 3.5 a) and b) also..





Socket AW HLz - unheated KG, with DERA 60 + 80

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d of the outer masonry at EC and insulation thicknesses of a screed insulation. The unheated cellar has a temperature correction factor FG 0.6. The screed insulation has a thermal conductivity of 0.035 W / (mK). The thickness of the insulation behind the DERA - Deckenabmauerzeigel is 80 mm having a thermal conductivity <= 0.035 W / (mK). The basement masonry is constructed of 300 mm HLzW, the thermal conductivity of the basement masonry is of minor Bedeutung.Die system limit the basement ceiling below the floor insulation on the soffit. The results are for thermal conductivities of the outer wall on the ground floor from 0.07 to 0.14 W / (mK).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 28 is -0.05 W / (m K), where in principle for psi values <=, for overlying values in accordance with paragraph 3.5 a) and b) also..



d

15

20

+

Kellenwand

Schematic diagram

d/3

Socket AW HLz - Heated KG, with perimeter insulation

Linear thermal transmittance Y [W / (m * K)] Thickness d of the outer wall 300 mm 490 mm 365 mm 425 mm 0.07 0.04 0.04 0.03 0.03 λ_{mw}[\///(m•K)] 0.09 0.04 0.04 0.04 0.04 60 60 180 0.11 0.05 0.05 0.04 0.04 0.05 0.14 0.05 0.05 0.05 (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the outer masonry at the EC. The SFL is about 0.5 m above the soil. The thermal insulation of the basement ceiling is limited to an impact sound insulation and balance between installations. The thickness of the perimeter insulation is d / 3 having a thermal conductivity of 0.04 W / (mK). The basement masonry from HLzW Masonry> = 300 mm built, the thermal conductivity of the basement masonry is of secondary importance.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 26 is given.

Außenwand



d

20

_d/3

+

Kellerwand

Schematic diagram



15

11

No. 30700

	Linear thermal transmittance Y [W / (m * K)] Thickness d of the outer wall 300 mm							
	λ _{MW} [VV/(m+K)]		1 hickness d o 365 mm 425	li 300 mm	490 mm			
		0.07	0.02	0.02 0.02 0		0.03		
		0.09	0.03	0.03	0.03	0.03		
180		0.11	0.03	0.04	0.04	0.04		
		0.14	0.04	0.04	0.05	0.05		
(All dimensions in mm)		Charged Heat 2.8 (AMZ 2012)						

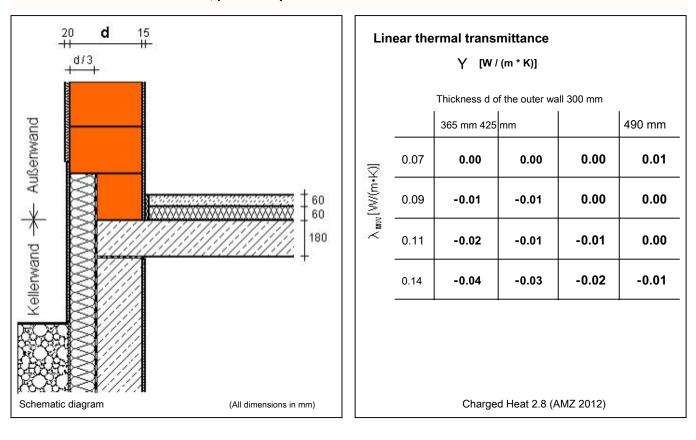
The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the outer masonry at the EC. The SFL is about 0.5 m above the soil. The thermal insulation of the basement ceiling is limited to an impact sound insulation and balance between installations. The thickness of the perimeter insulation is d / 3 having a thermal conductivity of 0.04 W / (mK). The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The results also apply Füllziegelmauerwerk in KG. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application. The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 26 is given.

Socket AW HLz - Heated KG StB, perimeter pulled



Wöllstein Ziegelhüttenstr. 40-42

No. 30710

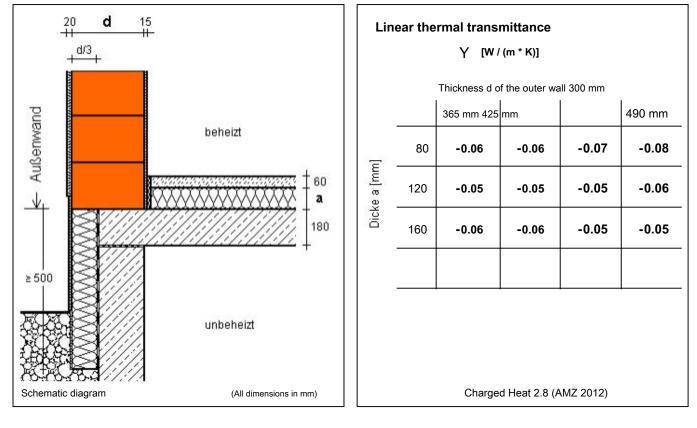


The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the outer masonry at the EC. The SFL is about 0.5 m above the soil. The thermal insulation of the basement ceiling is limited to an impact sound insulation and balance between installations. The thickness of the perimeter insulation is d / 3 having a thermal conductivity of 0.04 W / (mK). The perimeter insulation covers the first brick layer to a height of 25 cm. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The results also apply Füllziegelmauerwerk in KG. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application. The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 26 is given.



Socket AW HLz - unheated StB-KG, a screed insulation

No. 30750



The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d of the outer masonry at EC and a thickness of the screed insulation. The unheated cellar has a temperature correction factor FG 0.6. The screed insulation has a thermal conductivity of 0.035 W / (m K). The thickness of the perimeter insulation is d / 3 and has a thermal conductivity of 0.04 W / (m K). The insulation extends below the earth's surface and has a minimum height of 500 mm. The unheated basement is designed as a reinforced concrete structure. The system limit the basement ceiling below the floor insulation on the soffit.

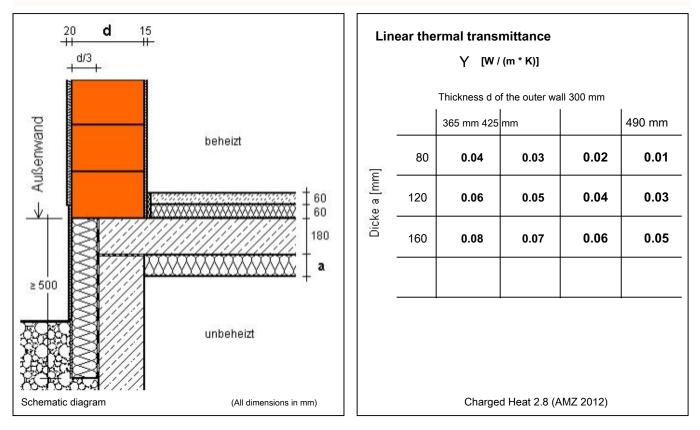
The calculation results are valid for thermal conductivities of the outer walls of 0.07 to 0.14 W / (m K).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 28 is given.



Socket AW HLz - unheated StB-KG, ceiling down insulated



The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d of the outer masonry at EC and insulation thicknesses a of the under side basement ceiling insulation. The unheated cellar has a temperature correction factor FG 0.6.

The lower side insulation of the basement ceiling is constructed with a thermal conductivity of 0.04 W / (mK). The thickness of the perimeter insulation is d / 3 and has a thermal conductivity of 0.04 W / (mK) on. The insulation extends below the earth's surface and has a minimum height of 500

mm. The system limit the basement ceiling below the floor insulation to the slab! The calculation results are valid for thermal conductivities of the outer walls of 0.07 to 0.14 W / (m K). At higher temperatures the cellar with FG - values - values <0.6 are slightly more favorable result Psi.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 27 is given.



Wöllstein Ziegelhüttenstr. 40-42

d

15

20

+d/3

+

Außenwand

≥ 500

Schematic diagram

insulated underground garage ceiling below - Socket AW HLz

Linear thermal transmittance Y [W / (m * K)] Thickness d of the outer wall 300 mm 365 mm 425 mm 490 mm beheizt 80 -0.03 -0.02 -0.03 -0.03 Dicke a [mm] 120 -0.01 0.00 0.00 0.00 60 60 180 160 0.00 0.01 0.01 0.01 a Außenluft (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficients is carried out in dependence of different wall thicknesses d of the outer masonry at EC and insulation thicknesses a of the lower-side ceiling insulation. The underground car park has outdoor air temperature. The lower side insulation of underground garage ceiling is assumed to have a thermal conductivity of 0.04 W / (mK). The thickness of the perimeter insulation is d / 3 and has a thermal conductivity of

0.04 W / (mK) on. The insulation has a minimum height of 500 mm. The system limits the garage ceiling is below the lower-side thermal insulation! The calculation results are for thermal conductivities of the exterior walls on the ground floor from 0.07 to 0.14 W / (mK). The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

There is no reference detail in accordance with DIN 4108 Supplement 2: 2006-03 before. An equivalence proof need not be performed.

Socket AW HLz innenged. - underground, just floor insulation

**JUWÖ POROTON

Wöllstein Ziegelhüttenstr. 40-42

d 20 15 Linear thermal transmittance ++ 60 Y [W / (m * K)] Thickness d of the outer wall 300 mm 365 mm 425 mm 490 mm Außenwand beheizt 80 -0.09 -0.10 -0.11 -0.12 Dicke a [mm] 60 120 -0.08 -0.08 -0.08 -0.09 V a 180 160 -0.08 -0.07 -0.07 -0.07 Außenluft Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d of the outer masonry at EC and insulation thicknesses of a screed insulation. The underground car park has outdoor air temperature.

The insulation of the underground garage ceiling is below the screed having a thermal conductivity of 0.035 W / (mK) adopted. The first brick layer is provided on the room side with a 60 mm thick heat insulation of the thermal conductivity of 0.04 W / (mK). The system limits the garage ceiling is below the floor insulation on the soffit.

The calculation results are for thermal conductivities of the exterior walls on the ground floor between 0.07 and 0.14 W / (mK).

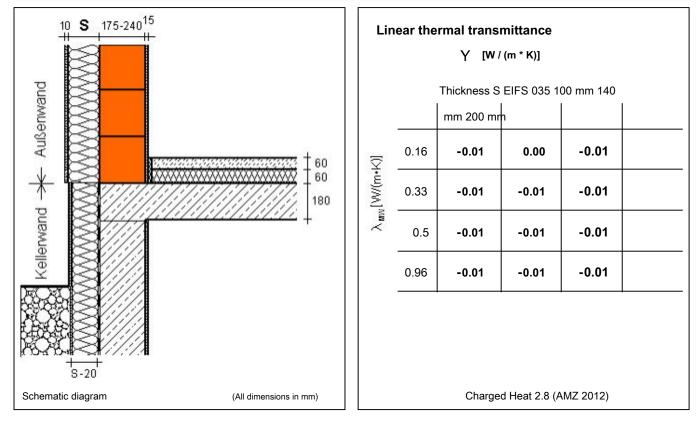
The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

There is no reference detail in accordance with DIN 4108 Supplement 2: 2006-03 before. An equivalence proof need not be performed.



AW base with EIFS - Heated KG reinforced concrete

No. 34000



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the EIFS and thermal conductivities of the rear brickwork on the ground for wall thicknesses of 175-240 mm.

The thermal conductivity of the EIFS is assumed to be 0.035 W / (mK). The thickness of the perimeter insulation is 20 mm less than that of EIFS having a thermal conductivity of 0.04 W / (mK). The thermal insulation of the basement ceiling is limited to an impact sound insulation and balance between installations.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 29 is given.

POROTO

No. 34050

Wöllstein Ziegelhüttenstr. 40-42

AW base with EIFS + Kimmschicht - KG-ceiling insulated top

10≥100 175-240 ¹⁵ - 11 		Lin	ear the	rmal transı Y [w /			
			A screed thickness insulation 80 035				
Außenwand	beheizt						
liker		$\overline{\Sigma}$	0.16	-0.02	-0.01	-0.01	
	60 a	λ _{MW} [\\//(m•K)]	0.33	0.01	0.03	0.03	
	180	λuv	0.5	0.02	0.04	0.04	
≥ 500	52,		0.96	0.03	0.05	0.05	
	unbeheizt						
Schematic diagram (All dimensions in mm)			Charged Heat 2.8 (AMZ 2012)				

The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses a of the screed insulation of the heat conductivity 0.035 W / (mK) and the thermal conductivities of the rear brickwork on the ground for wall thicknesses of 175-240 mm. In masonry thermal conductivities of about 0.3 W / (mK), the lowermost layer of brick is 0.3 W / (mK) designed as Kimmschicht with a vertical thermal conductivity <=. The basement has a temperature correction factor FG 0.6.

The thermal conductivity of the EIFS is assumed to be 0.035 W / (mK). The results are available for insulation of the ETICS between 100 and 200 mm. The thickness of the perimeter insulation is 20 mm less than that of EIFS having a thermal conductivity of 0.04 W / (mK). The insulation extends below the earth's surface and has a minimum height of 500 mm. The system limit the basement ceiling below the floor insulation on the soffit.

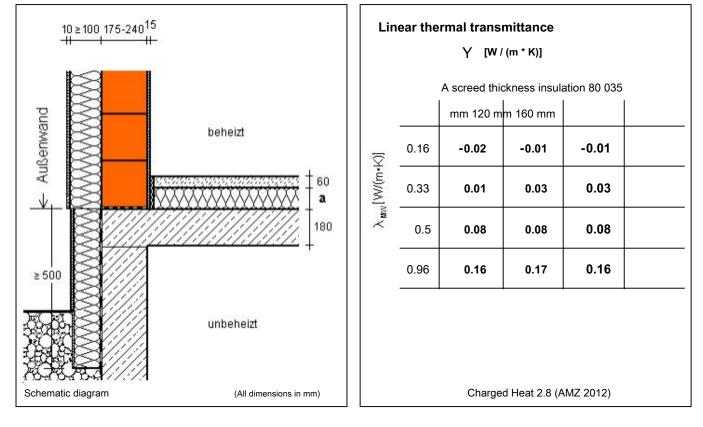
The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 31 is given.



AW base with EIFS - KG-ceiling insulated top

No. 34060



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses a of the screed insulation of the heat conductivity 0.035 W / (mK) and the thermal conductivities of the rear brickwork on the ground for wall thicknesses of 175-240 mm. The basement has a temperature correction factor FG 0.6.

The thermal conductivity of the EIFS is assumed to be 0.035 W / (mK). The results are available for insulation of the ETICS between 100 and 200 mm. The thickness of the perimeter insulation is 20 mm less than that of EIFS having a thermal conductivity of 0.04 W / (mK). The insulation extends below the earth's surface and has a minimum height of 500 mm. The system limit the basement ceiling below the floor insulation on the soffit.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

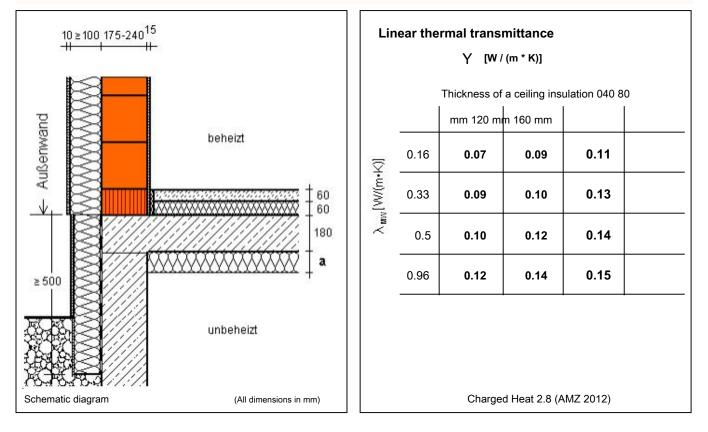
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 31 is given.



Wöllstein Ziegelhüttenstr. 40-42

AW base with EIFS + Kimmschicht - KG-ceiling / steamed up, down.

No. 34090



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation

thicknesses a of the under side of the ceiling insulation thermal conductivity

0.04 W / (mK) and thermal conductivities of the rear brickwork on the ground floor for wall thicknesses from 175 to 240

mm. The basement has a temperature - on correction factor FG 0.6. at

Masonry thermal conductivities of about 0.3 W / (mK), the lowermost layer of brick is 0.3 W / (mK) designed as Kimmschicht with a vertical thermal conductivity <=.

The thermal conductivity of the EIFS is assumed to be 0.035 W / (mK). The results are available for insulation of the ETICS between 100 and 200 mm. The thickness of the perimeter insulation is 20 mm less than that of EIFS having a thermal conductivity of 0.04 W / (mK). The insulation extends below the earth's surface and has a minimum height of 500 mm. The system limit the basement ceiling below the floor insulation on the soffit.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

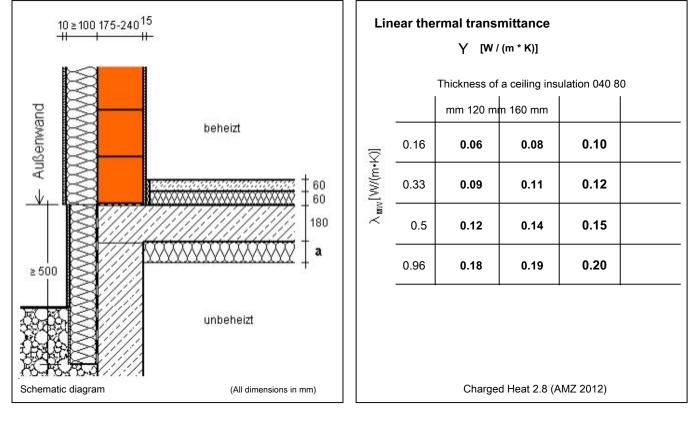
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 30 is given.





AW base with EIFS - unheated KG

No. 34095



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses a of the under side of the ceiling insulation thermal conductivity

0.04 W / (mK) and thermal conductivities of the rear brickwork on the ground floor for wall thicknesses from 175 to 240

mm. The basement has a temperature - on correction factor FG 0.6.

The thermal conductivity of the EIFS is assumed to be 0.035 W / (mK). The results are available for insulation of the ETICS between 100 and 200 mm. The thickness of the perimeter insulation is 20 mm less than that of EIFS having a thermal conductivity of 0.04 W / (mK). The insulation extends below the earth's surface and has a minimum height of 500 mm. The system limit the basement ceiling below the floor insulation on the soffit.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 30 is given.



AW base with VMz + core insulation - Heated KG StB

115 S 175-24	10 ¹⁵	Lin		Thickness S	(m * K)] core insulatio	on 035 80	
				mm 140 m	m 200 mm		
Außenwand	_	Ŕ	0.16	0.09	0.10	0.10	
$\dot{\ast}$		λ _{MW} [\\//(m+K)]	0.33	0.08	0.09	0.10	
vand -		Хым	0.5	0.08	0.09	0.10	
Kellenwand			0.96	0.08	0.09	0.10	
Schematic diagram	(All dimensions in mm)			Charge	d Heat 2.8 (A	MZ 2012)	

The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the core insulation and thermal conductivities of the rear brickwork on the ground for wall thicknesses of 175-240 mm. The thickness of the perimeter insulation is less than the thickness of the core insulation up to 20 mm. The psi values apply to thicknesses of the front brickwork> = 90 mm.

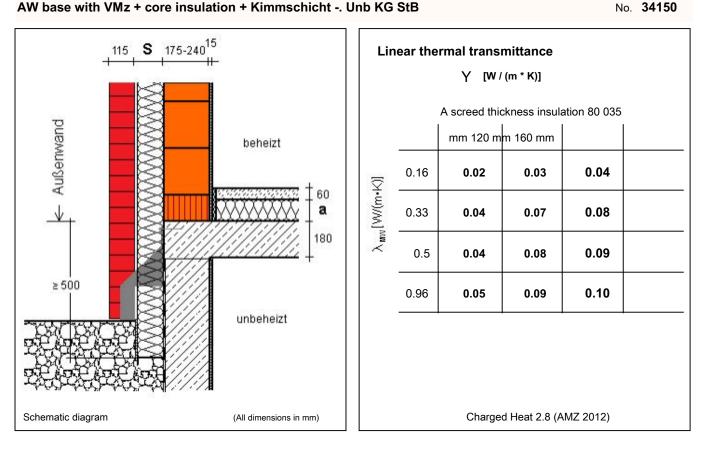
The thermal conductivity of the core insulation is 0.035 W / (mK), the set of perimeter insulation with 0.04 W / (mK). The support brackets for Bearing the front brickwork are included in the PSI value as punctual thermal bridges with a supplement of 0.1 W / (m K). The thermal insulation of the basement ceiling is limited to an impact sound insulation and balance between installations.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application. The system limit the basement ceiling and the EC external wall is located on the bare floor. The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 32 is given.

AW base with VMz + core insulation + Kimmschicht -. Unb KG StB

Wöllstein Ziegelhüttenstr. 40-42





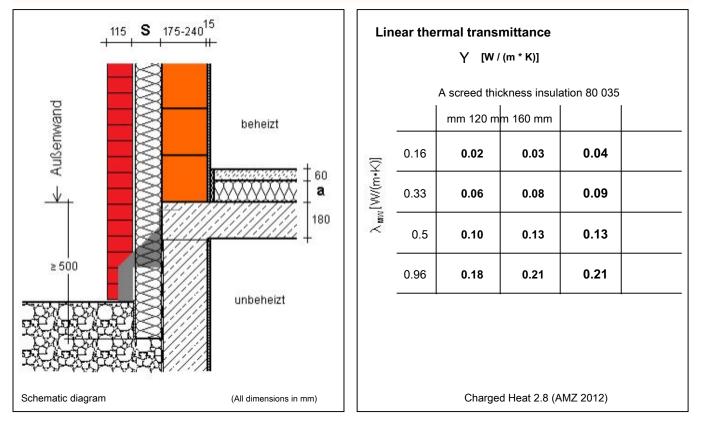
The calculation of linear thermal transmittance coefficients are a function of different thicknesses a screed insulation and thermal conductivities of the rear brickwork on the ground floor for wall thicknesses 175 - 240 mm. In masonry thermal conductivities of about 0.3 W / (mK), the lowermost layer of brick is 0.3 W / (mK) designed as Kimmschicht with a vertical thermal conductivity <=. The thickness of at least 500 mm high perimeter insulation is less than the thickness S of the core insulation up to 20 mm. The psi values are> = 90 mm for thicknesses S between 80 and 200 mm and thicknesses of the front brickwork.

The thermal conductivity of the core insulation and the insulation is screed with 0.035 W / (m K), the set of perimeter insulation with 0.04 W / (mK). The support brackets for Bearing the front brickwork are included in the Psi value as punctual thermal bridges with a supplement of 0.1 W / (m K).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of detail is to be understood as a schematic diagram and adjust for the particular application. The system limit the basement ceiling is on the soffit. The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 35 is given.



AW base with VMz + core insulation -. Unb KG StB



The calculation of linear thermal transmittance coefficients are a function of different thicknesses a screed insulation and thermal conductivities of the rear brickwork on the ground floor for wall thicknesses 175 - 240 mm. The thickness of at least 500 mm high perimeter insulation is less than the thickness S of the core insulation up to 20 mm. The psi values are> = 90 mm for thicknesses S between 80 and 200 mm and thicknesses of the front brickwork.

The thermal conductivity of the core insulation and the insulation is screed with 0.035 W / (m K), the set of perimeter insulation with 0.04 W / (mK). The support brackets for Bearing the front brickwork are included in the Psi value as punctual thermal bridges with a supplement of 0.1 W / (m K).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application. The system limit the basement ceiling is on the soffit. The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 35 is <given in principle = 0.2, for overlying values Estrichdämmdicken> for Psi-values = 100 mm in accordance with para.

3.5 a) and b) also.

French window - inside base board insulation. edge insulation - ...

French window - inside insulated bottom plate edge insulation

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and insulation thickness of a screed insulation. The window has a U-value of 0.95 W / (m²K) to (soft wood, plastic profile). The window installation position directly adjoins the plane of the base insulation. The 100 mm thick base insulation (frost apron) has a thermal conductivity of 0.04 W / (m K), the screed insulation 0.035 W / (mK). It is an over-insulation of the lower window profile of a / 2 as a basis.

The calculation results are for thermal conductivities of the exterior walls on the ground floor between 0.07 and 0.14 W / (mK) and additional insulated walls for thicknesses of EIFS / core insulation between 80 and 200 mm.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 67 is given.

Lir	ear the	rmal trans ۲ [w/			
				all 300 mm	
		365 mm 425	mm		490 mm
±60	80	-0.20	-0.19	-0.20	-0.19
a <u>u</u> e	120	-0.18	-0.18	-0.19	-0.19
	160	-0.19	-0.19	-0.20	-0.20
nm)		Charge	d Heat 2.8 (/	MZ 2012)	
		+ 60 a ≥150 → 120 → 120 → 120 → 120 → 120 → 120 → 160		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

Wöllstein Ziegelhüttenstr. 40-42

French window - externally insulated bottom plate edge insulation

**JUWÖ POROTON

Wöllstein Ziegelhüttenstr. 40-42

d Linear thermal transmittance Y [W / (m * K)] Thickness d of the outer wall 300 mm 490 mm 365 mm 425 mm 100 -0.06 -0.06 -0.05 -0.05 60 60 Dicke a [mm] 90 60 80 -0.02 -0.02 -0.01 -0.01 ≥150 120 0.03 0.04 0.05 0.05 а Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and insulation thickness a of the bottom plate insulation. The window has a U-value of 0.95 W / (m K) to (soft wood, plastic profile). The window installation position directly adjoins the plane of the base insulation. The 100 mm thick base insulation (frost apron) as well as the bottom plate insulation has a thermal conductivity of 0.04 W / (mK).

The calculation results are for thermal conductivities of the exterior walls on the ground floor between 0.07 and 0.14 W / (mK) and additional insulated walls for thicknesses of EIFS / core insulation between 80 and 200 mm.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

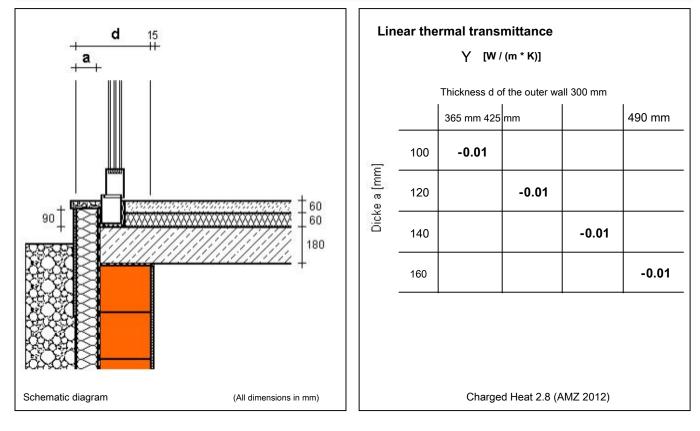
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 69 is given.

****JUWÖ** POROTON

Wöllstein Ziegelhüttenstr. 40-42

French window - Heated KG with perimeter insulation

No. **42000**



The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d of the outer masonry at EC and thicknesses of the perimeter insulation a.

The window has a U-value of 0.95 W / (m K) to (soft wood, plastic profile). The window installation position directly adjoins the plane of the perimeter insulation. The thermal insulation of the basement ceiling is limited to an impact sound insulation and balance between installations. The thickness of the perimeter insulation is a d / 3 having a thermal conductivity of 0.04 W / (mK). The window connection profile is to insulate 90 mm at the bottom. The basement masonry from HLzW Masonry> = 300 mm built, the thermal conductivity of the basement masonry is of secondary importance.

The calculation results are for thermal conductivities single-shell exterior walls on the ground between 0.07 and 0.14 W / (mK) and additional insulated walls for thicknesses of EIFS / core insulation between 80 and 200 mm.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

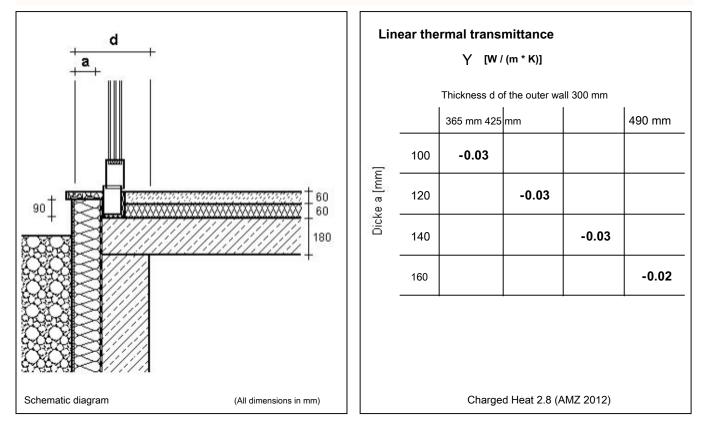
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 68 is given.



Wöllstein Ziegelhüttenstr. 40-42

French window - Heated KG reinforced concrete

No. 42100



The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d of the outer masonry at the EC. The window has a U-value of 0.95 W / (m K) to (soft wood, plastic profile).

The window has a U-value of 0.95 W / (m K) to (soft wood, plastic profile). The window installation position directly adjoins the plane of the perimeter insulation. The thermal insulation of the basement ceiling is limited to an impact sound insulation and balance between installations. The thickness of the perimeter insulation is a d / 3 having a thermal conductivity of 0.04 W / (mK). The window connection profile is to insulate 90 mm at the bottom. The basement is made of reinforced concrete.

The calculation results are for thermal conductivities single-shell exterior walls on the ground between 0.07 and 0.14 W / (m K) and additional insulated walls for thicknesses of EIFS / core insulation between 80 and 200 mm.

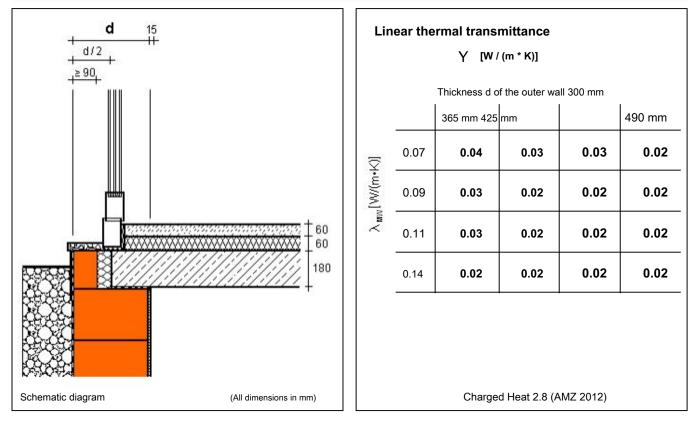
The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 68 is given.



French window - Heated KG HLz with Abmauerziegel

No. 42150



The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the outer masonry. The window has a U-value of 0.95 W / (m K) to (soft wood, plastic profile). The window mounting position is in the middle third of the wall plane. The thickness of the insulation between Abmauerziegel and the top end is included Deckenabmauerziegel d / 2 with a thermal conductivity of 0.035 W / (mK). The thermal conductivity of Abmauerziegels has a negligible impact on the Psi - values. The thermal insulation of the basement ceiling is limited to an impact sound insulation and balance between installations.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The values also apply to the basement walls with higher thermal conductivity than the EC masonry. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

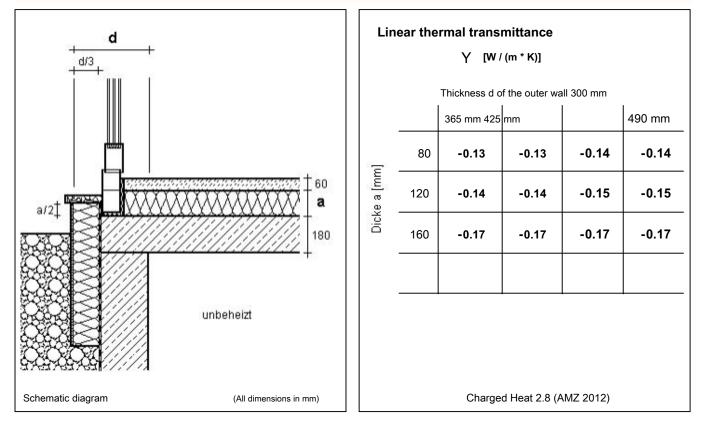
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 66 is given.

**JUWÖ POROTON

Wöllstein Ziegelhüttenstr. 40-42

French window - unheated KG reinforced concrete

No. 42250



The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d of the outer masonry at EC and insulation thicknesses of a screed insulation. The unheated cellar has a temperature correction factor FG 0.6. The window has a U-value of 0.95 W / (m K) to (soft wood, plastic profile). The window installation position directly adjoins the plane of the base insulation. The thickness of the base insulation is d / 3 and has a thermal conductivity of 0.04 W / (mK), the insulation of the screed 0.035 W / (mK). It is an over-insulation of the lower window profile of a / 2 based on the amount of thermal insulation is> = 500 mm.

The calculation results are for thermal conductivities single-shell exterior walls on the ground between 0.07 and 0.14 W / (m K) and additional insulated walls for thicknesses of EIFS / core insulation between 80 and 200 mm.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

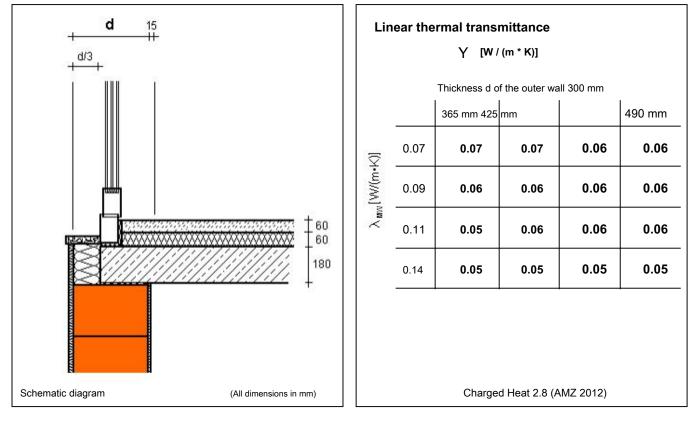
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 67 is given.

**JUWÖ POROTON

Wöllstein Ziegelhüttenstr. 40-42

French window - AW HLz with face insulation

No. **42400**



The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the outer masonry. The window has a U-value of 0.95 W / (m K) to (soft wood, plastic profile). The window mounting position is in the middle third of the wall plane. The thickness of the ceiling end insulation is d / 3 having a thermal conductivity of 0.035 W / (mK). The thermal insulation of the floor is limited to an impact sound insulation and balance between installations.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

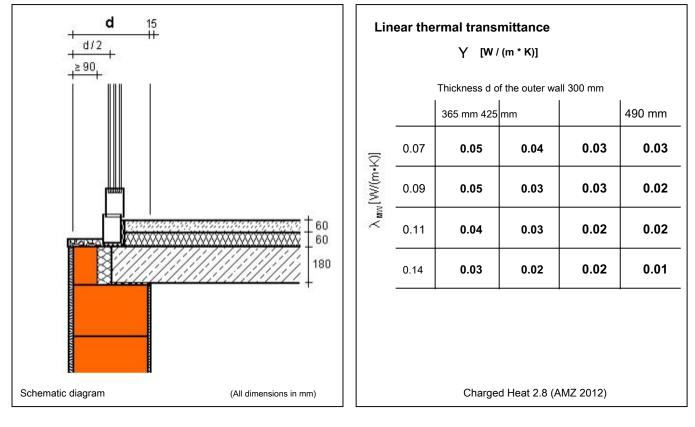
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 66 is given for the case heated cellar as well as for the regular floors port.



Wöllstein Ziegelhüttenstr. 40-42

French window - AW HLz with Abmauerziegel

No. 42450



The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the outer masonry. The window has a U-value of 0.95 W / (m K) to (soft wood, plastic profile). The window mounting position is in the middle third of the wall plane. The thickness of the insulation between Abmauerziegel and the top end is included Abmauerziegel d / 2 with a thermal conductivity of 0.035 W / (mK). The thermal conductivity of Abmauerziegels has a negligible impact on the Psi - values. The thermal insulation of the floor is limited to an impact sound insulation and balance between installations. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 66 is given for the case heated cellar as well as for the regular floors port.

**JUWÖ POROTON

Wöllstein Ziegelhüttenstr. 40-42

French window - ceiling penthouse level / loggia

20 -11	d 15	Lin	ear the		(m * K)]		
				Thickness d o 365 mm 425		490 mm	
Außenluft	beheizt	-	0.20	0.13	0.15	0.16	0.18
		U-Wert Dach	0.24	0.13	0.14	0.16	0.18
		N-N	0.28	0.13	0.14	0.16	0.18
beheizt	beheizt						
Schematic diagram	! (All dimensions in mm)			Charge	d Heat 2.8 (A	MZ 2012)	

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and U values of 120 mm provided with thermal insulation flat roof / rooftop.

The window has a U-value of $0.95 \text{ W} / (\text{m}^2\text{K})$ to (soft wood, plastic profile). The window mounting position is in the middle third of the wall plane. The length-based heat transfer coefficients apply to thermal conductivities of the roof insulation from 0.025 to 0.036 W / (mK).

The calculation results are valid for thermal conductivities of the outer wall from 0.07 to 0.14 W / (mK). The intermediate floor can be but formed in the region of the outer wall with a ceiling joist or the same with a supporting inner wall.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

There is no reference detail in accordance with DIN 4108 Supplement 2: 2006-03 before. An equivalence proof need not be performed.

15

(All dimensions in mm)

POROTO

Wöllstein Ziegelhüttenstr. 40-42

Parapet - centered window - AW HLz

		Thickness d o 365 mm 425			490 mm
6	0.07	0.00	0.00	0.01	0.0
Х _{ШW} [\\/(m•K)]	0.09	0.00	0.01	0.01	0.0
Хaw	0.11	0.01	0.01	0.01	0.0
	0.14	0.01	0.01	0.02	0.02

The calculation of length-based heat transfer coefficient is carried out in dependence of different wall thicknesses d and thermal conductivities of the brickwork. The window has a U-value of 0.95 W / (m²K) to (soft wood, plastic profile). The window mounting position is in the middle third of the wall plane.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

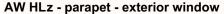
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 42 is given.

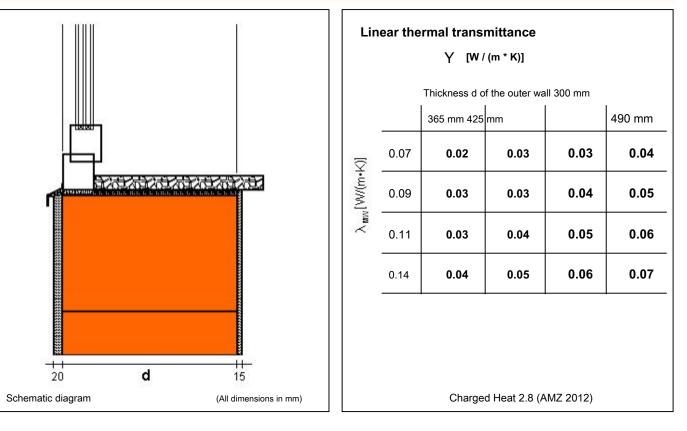
d

20

Schematic diagram

Wöllstein Ziegelhüttenstr. 40-42





The calculation of length-based heat transfer coefficient is carried out in dependence of different wall thicknesses d and thermal conductivities of the brickwork. The window has a U-value of 0.95 W / (m²K) to (soft wood, plastic profile). The window installation position is flush on the outside in the wall plane.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 42 is given.

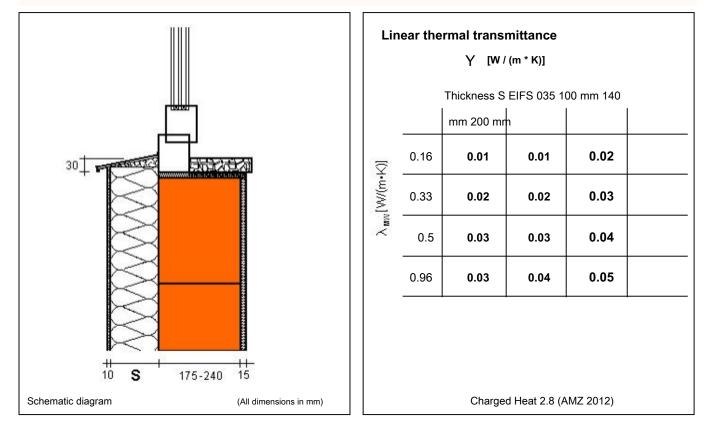


Wöllstein Ziegelhüttenstr. 40-42



Window sill - AW with EIFS

No. **44000**



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the EIFS and thermal conductivities of the rear masonry wall thicknesses of 175-240 mm.

The window has a U-value of 0.95 W / (m²K) to (soft wood, plastic profile). The window mounting position is on the outside flush with the brick backing. The thermal conductivity of the EIFS is assumed to be 0.035 W / (m K). The lower window frame is up to 30 mm above contained. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 43 is given.

Wöllstein Ziegelhüttenstr. 40-42

Parapet - Window flush with masonry back - AW VMz + KD

The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the core insulation and thermal conductivities of the rear masonry wall thicknesses of 175-240 mm. The psi values apply to thicknesses of the front brickwork> = 90 mm.

The window has a U-value of 0.95 W / (m²K) to (soft wood, plastic profile). The window mounting position is on the outside flush with the brick backing. The thermal conductivity of the core insulation is assumed to be 0.035 W / (mK). The lower window frame is up to 30 mm above contained.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 45 is given.

	Li	near the	Thickness S	/ (m * K)]	ion 035 80	
		0.16	0.00	0.01	0.02	
	λ _{aw} [\///(m•K)]	0.33	0.02	0.02	0.03	
	λaw	0.5	0.02	0.03	0.04	
		0.96	0.03	0.04	0.04	
115 ≥10 S 175-240 15			•	•		
Schematic diagram (All dimensions in mm			Charge	d Heat 2.8 (A	MZ 2012)	



Wöllstein Ziegelhüttenstr. 40-42

Balustrade - window centered in core insulation - AW VMz + KD

The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the core insulation and thermal conductivities of the rear masonry wall thicknesses of 175-240 mm. The psi values apply to thicknesses of the front brickwork> = 90 mm.

The window has a U-value of 0.95 W / (m²K) to (soft wood, plastic profile). The windows installation position is centered in the insulation layer. The thermal conductivity of the core insulation is assumed to be 0.035 W / (mK). The lower window frame is up to about contained by 30 mm. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 44 is given.

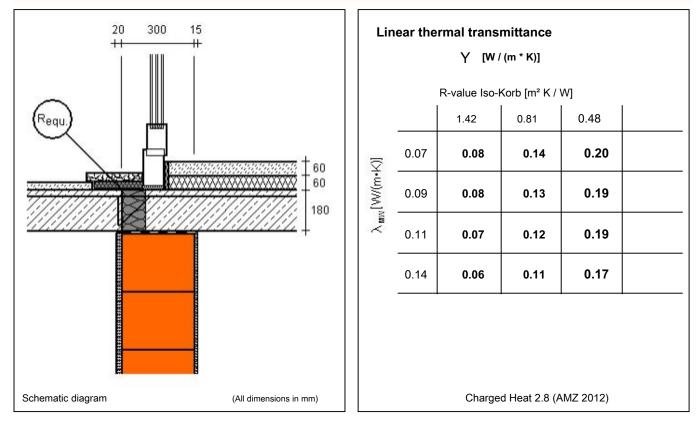
	Lin	ear the	rmal trans Y [W/ Thickness S	′ (m * K)]	on 035 80	
			mm 140 m	m 200 mm		
30	Q	0.16	0.00	-0.01	-0.01	
	λ _{∎w} [\\//(m•K)]	0.33	0.00	-0.01	-0.01	
	λıın	0.5	0.00	-0.01	-0.01	
		0.96	0.00	-0.01	-0.01	
+ + + + + + + + + + + + + + + + + + +						
Schematic diagram (All dimensions in mm)			Charge	d Heat 2.8 (A	MZ 2012)	





Window sill - balcony with Iso-Korb - AW HLz

No. **46000**



The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the external masonry and various thermal resistances R-equivalent of the insulating body for thermal decoupling of the balcony slab. The Requ - values decrease with increasing amount of steel in the insulation element. The insulating element has a thickness of 120 mm. The window has a U-value of 0.95 W / (m²K

) on (soft wood, plastic profile). The threshold window of the door is outside via contained with 30 mm insulation.

The calculation results are valid for 300 mm thick outer walls, the windows installation position is in the middle third of the outer wall.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 70 is given on the basis of compliance with the design principle.



Window sill - balcony with Iso-Korb - AW HLz

No. **46010**

20 365-490 ++ 120 ++	15 	Lin	ear the	rmal trans Y [w /	mittance (m * K)]			
			R-value Iso-Korb [m ² K / W]					
(Requ.)				1.42	0.81	0.48		
		Q	0.07	0.12	0.17	0.23		
	λ _{MW} [\\/\(m•K)]	0.09	0.12	0.17	0.23			
		Хmи	0.11	0.12	0.17	0.22		
			0.14	0.11	0.16	0.22		
Schematic diagram	(All dimensions in mm)			Charge	d Heat 2.8 (A	MZ 2012)		

The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the external masonry and various thermal resistances R-equivalent of the insulating body for thermal decoupling of the balcony slab. The Requ - values decrease with increasing amount of steel in the insulation element. The insulating element has a thickness of 120 mm. The window has a U-value of 0.95 W / (m²K

) on (soft wood, plastic profile). The threshold window of the door is outside via contained with 30 mm insulation.

The calculation results are valid for 365-490 mm thick outer walls, windows installation position is about 120 mm reveal depth.

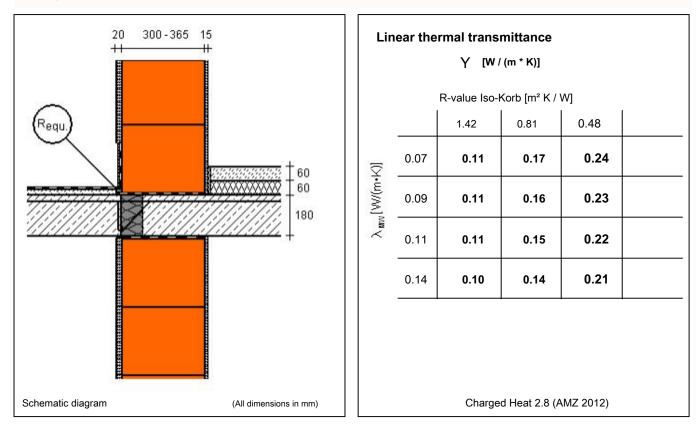
The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 70 is given on the basis of compliance with the design principle.



Wöllstein Ziegelhüttenstr. 40-42

Balcony with Iso-Korb - AW HLz



The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the external masonry and various thermal resistances R-equivalent of the insulating body for thermal decoupling of the balcony slab. The Requ - values decrease with increasing amount of steel in the insulation element. The insulating element has a thickness of 120 mm. The calculation results are valid for thickness of the outer walls 300 to 365 mm.

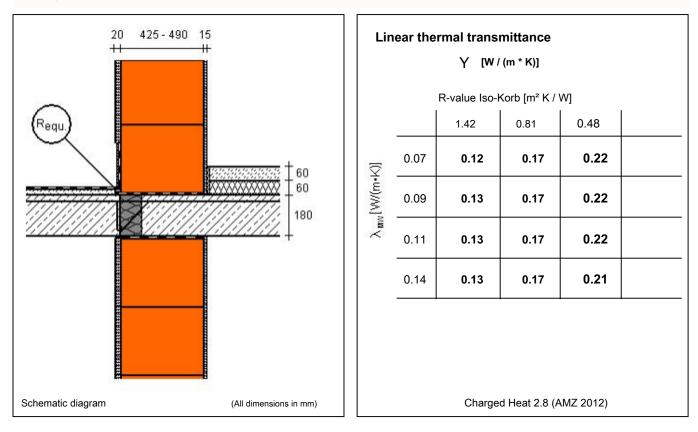
The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 70 is given on the basis of compliance with the design principle.



Wöllstein Ziegelhüttenstr. 40-42

Balcony with Iso-Korb - AW HLz



The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the external masonry and various thermal resistances R-equivalent of the insulating body for thermal decoupling of the balcony slab. The Requ - values decrease with increasing amount of steel in the insulation element. The insulating element has a thickness of 120 mm. The calculation results are valid for thicknesses of the outer walls 425 to 490 mm.

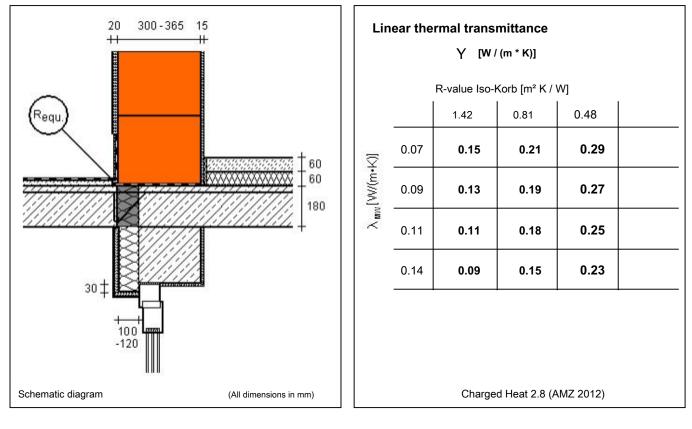
The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 70 is given on the basis of compliance with the design principle.



Defenestration - balcony with Iso-Korb - AW HLz

No. **46200**



The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the external masonry and various thermal resistances R-equivalent of the insulating body for thermal decoupling of the balcony slab. The Requ - values decrease with increasing amount of steel in the insulation element. The insulating element has a thickness of 120 mm. The lintel is provided frontally with 1/3 of the wall thickness and 30 mm over insulation of the window frame with the thermal conductivity of 0.035 W / (mK). The window has a U-value of 0.95 W / (m²K) to (soft wood, plastic profile). The calculation results are valid for thickness of the outer walls 300 to 365 mm. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 70 is given on the basis of compliance with the design principle.



Defenestration - balcony with Iso-Korb - AW HLz

	5	Lin		rmal trans Y [W / R-value Iso-ł	(m * K)]	w]	
Requ				1.42	0.81	0.48	
		5	0.07	0.16	0.22	0.29	
	60	Х _{ви} [\\//(m•K)]	0.09	0.15	0.21	0.28	
		Хим	0.11	0.14	0.20	0.27	
30 ±			0.14	0.13	0.18	0.25	
	Sen						
Schematic diagram	(All dimensions in mm)			Charge	d Heat 2.8 (A	MZ 2012)	

The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the external masonry and various thermal resistances R-equivalent of the insulating body for thermal decoupling of the balcony slab. The Requ - values decrease with increasing amount of steel in the insulation element. The insulating element has a thickness of 120 mm. The lintel is provided frontally with 1/3 of the wall thickness and 30 mm over insulation of the window frame with the thermal conductivity of 0.035 W / (mK). The window has a U-value of 0.95 W / (m²K) to (soft wood, plastic profile). The calculation results are valid for thicknesses of the outer walls 425 to 490 mm. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

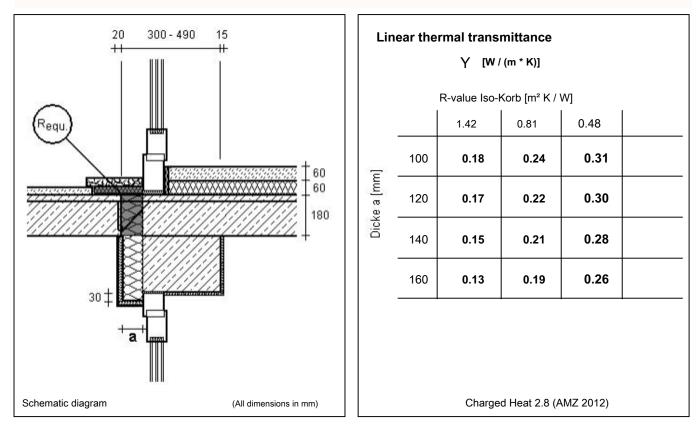
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 70 is given on the basis of compliance with the design principle.

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Wöllstein Ziegelhüttenstr. 40-42

Defenestration - balcony with Iso-Korb - French window

No. 46300



The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal resistances R-equivalent of the insulating body for thermal decoupling of the balcony slab and a thickness of the lintel insulation. The Requ - values decrease with increasing amount of steel in the insulation element.

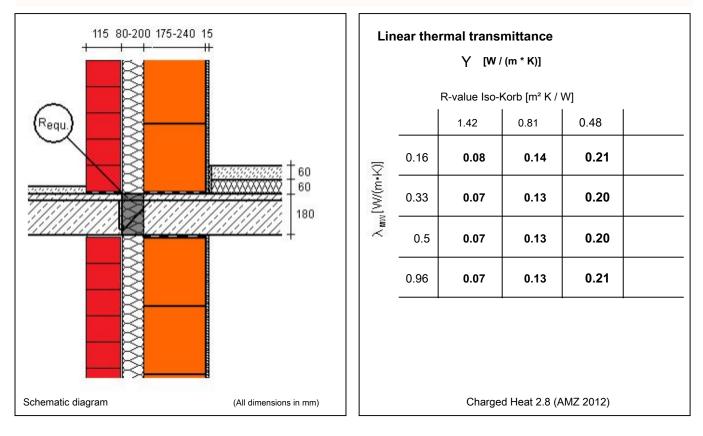
The insulating element has a thickness of 120 mm. The frame of the windows are contained by 30 mm outwardly beyond the insulation material. The lintel is provided frontally with 1/3 of the insulation wall thickness of the heat conductivity 0.035 W / (mK). The windows have a U value of 0.95 W / (m²K) to (soft wood, plastic profile), the window installation positions are about 120 mm reveal depth.

The calculation results are valid for thicknesses of monolithic outer walls 300 to 490 mm. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 70 is given on the basis of compliance with the design principle.



Balcony with Iso-Korb - AW VMz + core insulation



The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the rear brickwork of the thicknesses of 175-240 mm, and various thermal resistances R-equivalent of the insulating body for thermal decoupling of the balcony slab. The Requ - values decrease with increasing amount of steel in the insulation element. The psi values apply to thicknesses of the front brickwork> = 90 mm. The insulating element has a thickness of 120 mm. The calculation results are also valid for exterior walls with EIFS with insulation thicknesses between 100 and 200 mm.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 70 is given on the basis of compliance with the design principle.

Wöllstein Ziegelhüttenstr. 40-42



Soffit - the center window - AW HLz

		⁺ ₂₀	Lin		rmal transi Y [W /	(m * K)]	ll 300 mm	
					365 mm 425	mm		490 mm
			Σ.	0.07	0.01	0.01	0.01	0.01
		d	λ _{∎w} [\\/(m•K)]	0.09	0.01	0.01	0.01	0.02
			Хым	0.11	0.01	0.01	0.02	0.02
				0.14	0.01	0.02	0.02	0.03
Fenster →	- Außenwand	‡15						
Schematic diagram	(All dimensions i	in mm)			Charge	d Heat 2.8 (A	MZ 2012)	

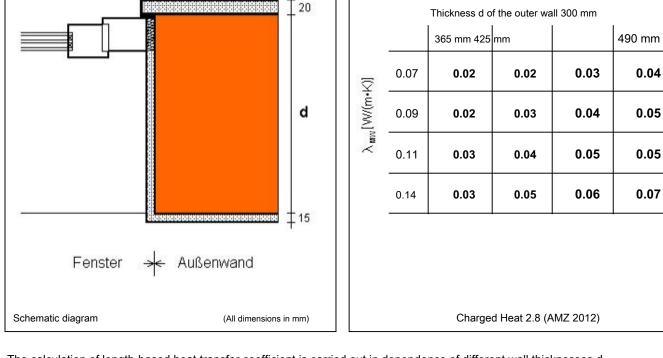
The calculation of length-based heat transfer coefficient is carried out in dependence of different wall thicknesses d and thermal conductivities of the brickwork. The window has a U-value of $0.95 \text{ W} / (\text{m}^2\text{K})$ to (soft wood, plastic profile). The window mounting position is in the middle third of the wall plane.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 48 is given.

Wöllstein Ziegelhüttenstr. 40-42

AW HLz - soffit - exterior window



The calculation of length-based heat transfer coefficient is carried out in dependence of different wall thicknesses d and thermal conductivities of the brickwork. The window has a U-value of 0.95 W / (m^{2} K) to (soft wood, plastic profile). The window installation position is flush on the outside in the wall plane.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 image 48 is added 0.05 W / (mK) for psi values <=.



Linear thermal transmittance

Y [W / (m * K)]

Wöllstein Ziegelhüttenstr. 40-42



Soffit - window stop - AW HLz

≥45 ++	‡20	Lin	ear the	ermal trans Y [W /	(m * K)]	ıll 300 mm	
				365 mm 425	mm		490 mm
≥120 +		\ \[\[\] \[\]	0.07	-0.02	-0.01	-0.01	0.00
	d	λ _{∎w} [\\/(m•K)]	0.09	-0.01	-0.01	-0.01	0.00
		×	0.11	-0.01	-0.01	0.00	0.01
	L		0.14	-0.01	0.00	0.00	0.01
Fenster →< Außenwand	‡15						
Schematic diagram (All dimensions in	n mm)			Charge	d Heat 2.8 (A	MZ 2012)	

The calculation of length-based heat transfer coefficient is carried out in dependence of different wall thicknesses d and thermal conductivities of the brickwork. The window has a U-value of 0.95 W / (m²K) to (soft wood, plastic profile). The window jamb is formed with a stopper brick.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 48 is given.

****JUWÖ** POROTON

Wöllstein Ziegelhüttenstr. 40-42

Fenster

Schematic diagram

Soffit - Window flush with masonry back - AW EIFS

30

Thickness S EIFS 035 100 mm 140 mm 200 mm 10 0.01 0.01 0.02 0.16 S λ_{mw}[\/\/(m•K)] 0.33 0.02 0.03 0.03 ≤240 0.5 0.03 0.04 0.04 15 0.96 0.04 0.05 0.05

Linear thermal transmittance

Y [W / (m * K)]

Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the EIFS and thermal conductivities of the rear masonry wall thicknesses <= 240 mm. The impact of lower wall thicknesses of brick backing is of secondary importance.

The window has a U-value of 0.95 W / (m^2 K) to (soft wood, plastic profile). The window mounting position is on the outside flush with the brick backing. The thermal conductivity of the insulating material of the EIFS is assumed to be 0.035 W / (mK). The window frame is about contained by 30 mm insulation.

(All dimensions in mm)

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 49 is given.

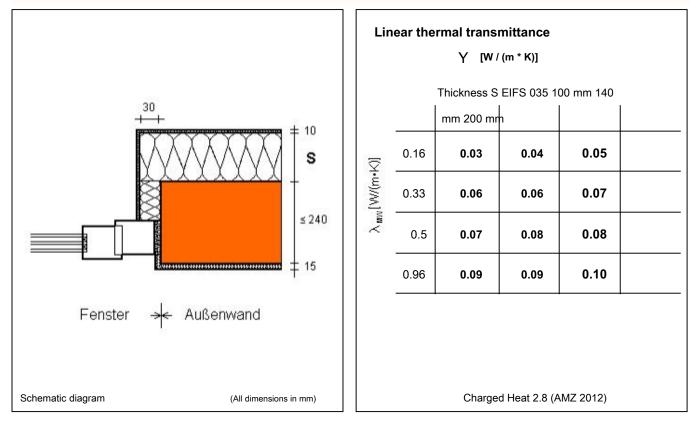
Außenwand

****JUWÖ** POROTON

Wöllstein Ziegelhüttenstr. 40-42

Soffit - window Laibungsdämmung - AW EIFS

No. **54005**



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the EIFS and thermal conductivities of the rear masonry wall thicknesses <= 240 mm. The impact of lower wall thicknesses of brick backing is of secondary importance.

The window has a U-value of 0.95 W / (m²K) to (soft wood, plastic profile). The window installation position is about 80 mm deep in the Mauerwerkslaibung eg shutter boxes with external inspection cover arranged. The thermal conductivity of the insulation material of the EIFS is

0.035 W / (mK) adopted. The window frame is about contained by 30 mm insulation. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 49 is for Psi-values <= 0.08 given.

Soffit - Window flush with masonry back - VMz + KD

Wöllstein Ziegelhüttenstr. 40-42



Linear thermal transmittance Y [W / (m * K)] 50 Thickness S core insulation 035 80 mm 140 mm 200 mm 115 ≤10 0.02 0.03 0.04 0.16 λ_{mw}[\/\/(m•K)] s 0.33 0.04 0.06 0.07 20 0.5 0.06 0.08 0.09 175-240 0.96 0.08 0.10 0.11 15 Außenwand Fenster Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the core insulation and thermal conductivities of the rear masonry wall thicknesses of 175-240 mm. The psi values apply to thicknesses of the front brickwork> = 90 mm.

The window has a U-value of 0.95 W / (m K) to (soft wood, plastic profile). The window mounting position is on the outside flush with the brick backing. The thermal conductivity of the core insulation is assumed to be 0.035 W / (mK). The window frame is insulated with 20 mm insulation and 50 mm overlap.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 image 51 is 0.06 W / (m K) for psi values <=.

Soffit - window centered in core insulation - VMz + KD

Wöllstein Ziegelhüttenstr. 40-42



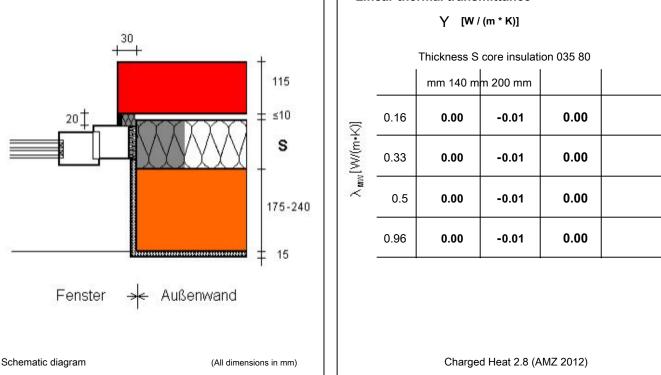
Linear thermal transmittance Y [W / (m * K)] 30 115 mm 140 mm 200 mm

The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the core insulation and thermal conductivities of the rear masonry wall thicknesses of 175-240 mm. The psi values apply to thicknesses of the front brickwork> = 90 mm.

The window has a U-value of 0.95 W / (m K) to (soft wood, plastic profile). The windows installation position is centered in the insulation layer. The thermal conductivity of the core insulation is assumed to be 0.035 W / (m K). The window frame is insulated with 20 mm insulation and 30 mm overlap.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 50 is given.





Window reinforced concrete cellar - insulated outside - AW HLz

Wöllstein Ziegelhüttenstr. 40-42

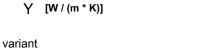
20

++

≥ 300

15

₩



Linear thermal transmittance

Außenwand		30 ±			variant 1	2	3
- Auß	0	; +a+	-	100	0.10	0.05	0.31
* p			Dicke a [mm]	120	0.10	0.05	0.32
KG-Wand +		a	Dick	140	0.10	0.06	0.33
× 4	±30			160	0.11	0.06	0.33
KG-Fenster ø †		3					
Schematic d	agram	(All dimensions in mm)			Charge	d Heat 2.8 (A	MZ 2012)

2

The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses a perimeter insulation for 3 different variants:

1: lintel with a monolithic outer wall in the EC 2: Fensterlaibung / -brüstung reinforced concrete perimeter 3: Dämmzarge circumferentially from PVC (camber and soffit)

The window has a U-value of 0.95 W / (m²K) to (soft wood, plastic profile). The window installation position is flush on the outside of the reinforced concrete wall. The thermal conductivity of the insulating material of the perimeter insulation is assumed to be 0.04 W / (mK). The window frame is contained in the above cases 1 and 2 with 30 mm insulation. The Psi-values of constructions 2 and 3 shall also apply zusatzggedämmtes masonry.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

There is no reference detail in accordance with DIN 4108 Supplement 2: 2006-03 before. An equivalence proof need not be performed.

Wöllstein Ziegelhüttenstr. 40-42

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the outer masonry. The lintel is frontally with d / 3 of the wall thickness and the bottom side provided with 60 mm insulation of the thermal conductivity of 0.035 W / (mK). The window has a U-value of 0.95 W / (m²K) to (soft wood, plastic profile).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 54 is given.

Page - 71 -

20 d	15	Lin	ear the	ermal trans Y [W /	/ (m * K)]	ll 300 mm	
p				365 mm 425	mm		490 mm
Außenwand		Ā	0.07	0.08	0.08	0.08	0.09
- Auf	180	Х _{ШW} [VV/(m•K)]	0.09	0.05	0.06	0.07	0.08
	250	λııı	0.11	0.03	0.04	0.05	0.06
			0.14	0.00	0.02	0.03	0.04
Schematic diagram	(All dimensions in mm)			Charge	d Heat 2.8 (A	MZ 2012)	

Defenestration reinforced concrete - all round insulation - AW HLz



Wöllstein Ziegelhüttenstr. 40-42

d

d/3

20

++

-

Außenwand 60 0.06 0.07 0.06 0.06 0.06 60 Х _{ШW} [VV/(m•K)] 180 0.09 0.04 0.04 0.05 0.05 0.11 0.02 0.03 0.04 0.04 0.14 -0.01 0.00 0.02 0.02 Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

Lintel reinforced concrete - window externally flush - AW HLz

15

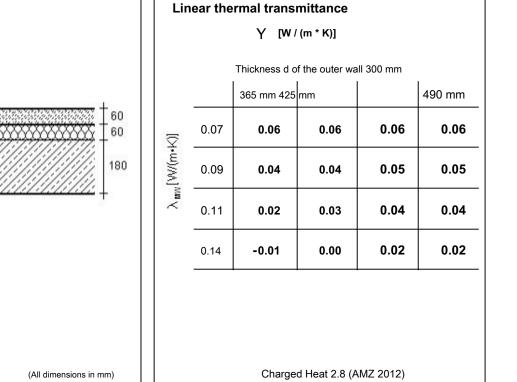
++

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the outer masonry. The lintel is frontally with d / 3, the wall thickness of the thermal insulation provided thermal conductivity 0.035 W / (mK). The window has a U-value of 0.95 W / (m²K) to (soft wood, plastic profile) and is externally flush struck.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 54 is given.





**JUWÖ POROTON

No. 60120

Wöllstein Ziegelhüttenstr. 40-42

20 d 15 Linear thermal transmittance ++ H Y [W / (m * K)] Thickness d of the outer wall 300 mm 490 mm 365 mm 425 mm Außenwand 60 0.06 0.07 0.06 0.06 0.06 60 Х _{ШW} [VV/(m•K)] 180 0.09 0.04 0.05 0.05 0.05 0.11 0.02 0.03 0.03 0.04 0.14 -0.01 0.01 0.01 0.02 60 d/3 Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

Defenestration reinforced concrete - insulated outside - AW HLz

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the outer masonry. The lintel is frontally with d / 3, and provided on the underside up to the window stick with 60 mm insulation of the thermal conductivity of 0.035 W / (m K). The window has a U-value of 0.95 W / (m K) to (soft wood, plastic profile).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 54 is given.

Wöllstein Ziegelhüttenstr. 40-42



20 d 15 Linear thermal transmittance + ----Y [W / (m * K)] Thickness d of the outer wall 300 mm 490 mm 365 mm 425 mm 60 0.07 0.05 0.05 0.05 0.05 60 60 λ_{mw}[\/\/(m•K)] ←Außenwand→ 180 0.09 0.02 0.03 0.03 0.03 0.11 0.00 0.01 0.01 0.01 0.14 -0.04 -0.03 -0.02 -0.01 60 +d/3 Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

Defenestration reinforced concrete - insulated exterior - French window

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the outer masonry. The lintel is frontally with d / 3 and above and insulates the underside up to the window stick with 60 mm insulation of the thermal conductivity of 0.035 W / (m K). The window has a Uw value of 0.95 W / (m K) to (soft wood, plastic profile).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

There is no reference detail in accordance with DIN 4108 Supplement 2: 2006-03 before. An equivalence proof need not be performed.



Wöllstein Ziegelhüttenstr. 40-42



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the EIFS with the thermal conductivity of 0.035 W / (mK) and thermal conductivities of the rear brickwork.

The lintel is frontally with 100 - 200 mm and contained about top and bottom sides of the window to stick with 60 mm insulation of the thermal conductivity of 0.035 W / (mK). The window has a U-value of 0.95 W / (mK) to (soft wood, plastic profile). All psi values are due to over insulation of the window sections below 0.01 W / (mK).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

There is no reference detail in accordance with DIN 4108 Supplement 2: 2006-03 before. An equivalence proof need not be

Defenestration reinforced concrete - AW with EIFS - French window - extra insulated

performed.

20 d	15 	Lin	near thermal transmittance Υ [W / (m * K)] Thickness S EIFS 100 mm 140 mm				
	1	λ _{MW} [\//(m+K)]		200 mm			
			0.16	0.00	0.00	0.00	
	180		0.33	0.00	0.00	0.00	
Außenw	+		0.5	0.00	0.00	0.00	
			0.96	0.00	0.00	0.00	
+ s + c							
Schematic diagram	(All dimensions in mm)	Charged Heat 2.8 (AMZ 2012)					

Defenestration reinforced concrete - AW with EIFS - French window

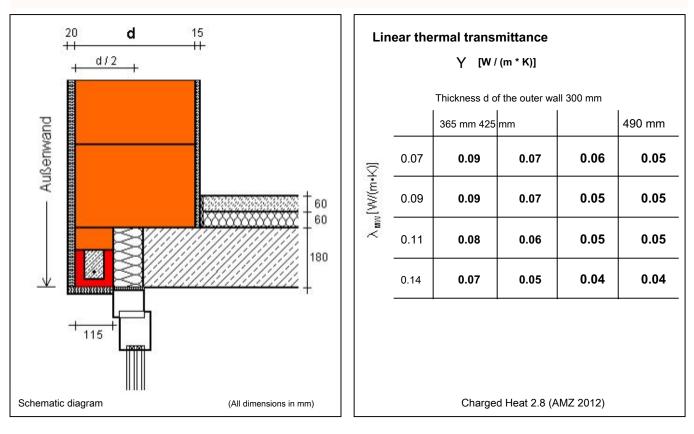


**JUWÖ POROTON

Wöllstein Ziegelhüttenstr. 40-42

Window flat camber cover the same - AW HLz

No. 60200



The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the outer masonry. The window has a U-value of $0.95 \text{ W} / (\text{m}^2\text{K})$ to (soft wood, plastic profile). The window mounting position is in the middle third of the wall plane. The version with 115 mm wide brick flat falls is limited depending on the static to specific window widths. The thickness of the insulation, including a flat lintel is d / 2 with the thermal conductivity of 0.035 W / (mK). For large window widths, instead of the flat lintel and the walling a brick-U-shell may be used. The thermal conductivity of Abmauerziegels has a negligible impact on the Psi - values.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

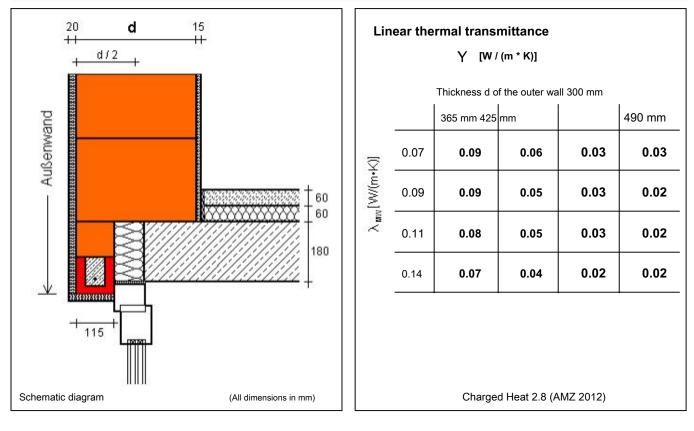
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 54 is given.



Wöllstein Ziegelhüttenstr. 40-42

Window flat fall as a stop - AW HLz

No. 60300



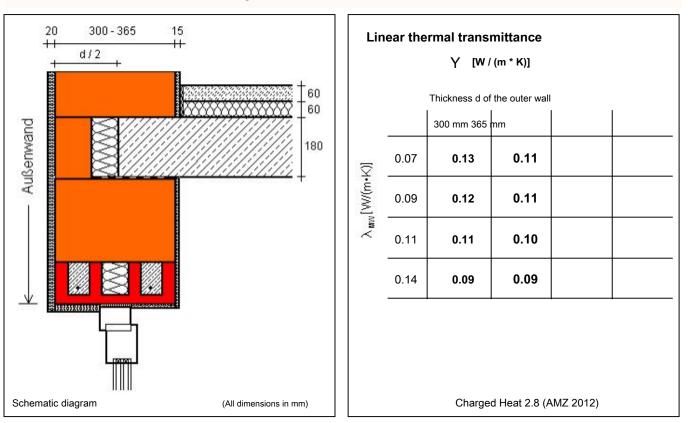
The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the outer masonry. The window has a U-value of 0.95 W / (m K) to (soft wood, plastic profile). The windows installation position is centered in the insulation layer. The design with 115 mm wide flat brick falls is limited depending on the static certain windows of widths. The flat-fall serves as an upper window fittings. The thickness of the insulation, including a flat lintel is d / 2 with the thermal conductivity of 0.035 W / (mK). For large window widths, instead of the flat lintel and the walling a brick-U-shell may be used. The thermal conductivity of Abmauerziegels has a negligible impact on the Psi - values.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 54 is given.



Wöllstein Ziegelhüttenstr. 40-42



Window Dämmsturz with Übermauerung - AW HLz 300-365 mm

The calculation of the length-based heat transfer coefficient is dependent on the wall thicknesses of 300 and 365 mm and thermal conductivities of the outer masonry. The window has a U-value of 0.95 W / (m²K) to (soft wood, plastic profile). The design with brick Dämmstürzen is limited depending on the static to specific window widths. For large window widths instead of the insulation fall a version with two brick-U-shapes or flat lintels and intervening insulation can be selected. The thickness of the ceiling end insulation is included Abmauerziegel d / 2 with the thermal conductivity of 0.035 W / (mK). The thermal conductivity of Abmauerziegels has a negligible impact on the Psi - values.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 54 is given.

**JUWÖ POROTON

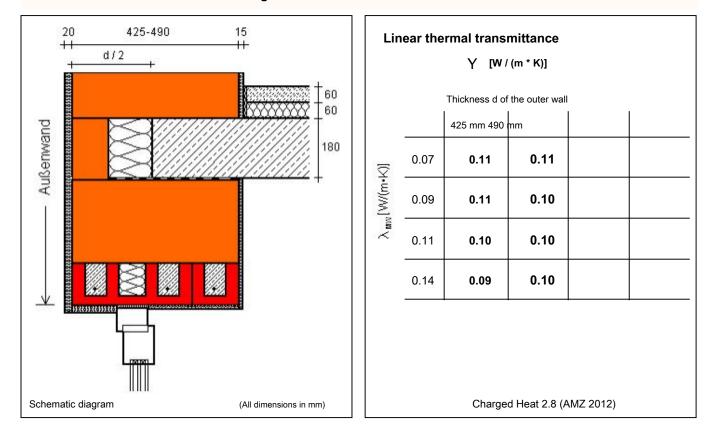
No. 60610

Window Dämmsturz with Übermauerung - AW HLz 425-490 mm - monolithic

Wöllstein Ziegelhüttenstr. 40-42

negligible impact on the Psi - values.

application.



Window Dämmsturz with Übermauerung - AW HLz 425-490 mm

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated

linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular

The calculation of the length-based heat transfer coefficient is dependent on the wall thicknesses of 425 and 490 mm and thermal conductivities of the outer masonry. The window has a U-value of 0.95 W / (m²K) to (soft wood, plastic profile). The design with brick Dämmstürzen is limited depending on the static to specific window widths and is made for wall thicknesses> 365 mm with a room-side allowance of a flat fall. For large window widths instead of the insulation fall a version with two brick-U-shapes or flat lintels and intervening insulation can be selected. The thickness of the ceiling end insulation is included Abmauerziegel d / 2 with the thermal conductivity of 0.035 W / (mK). The thermal conductivity of Abmauerziegels has a

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 54 is given.

**JUWÖ POROTON

Wöllstein Ziegelhüttenstr. 40-42

20 d 15 Linear thermal transmittance ++ ++ d/2 Y [W / (m * K)] 60 Thickness d of the outer wall 300 mm 60 490 mm 365 mm 425 mm Außenwand 180 0.07 0.09 0.08 0.07 0.05 A_{MW}[\\\\(m•K)] 0.09 0.08 0.08 0.07 0.05 0.11 0.07 0.07 0.07 0.05 0.06 0.14 0.06 0.06 0.04 Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

Window falls flat with Übermauerung - AW HLz

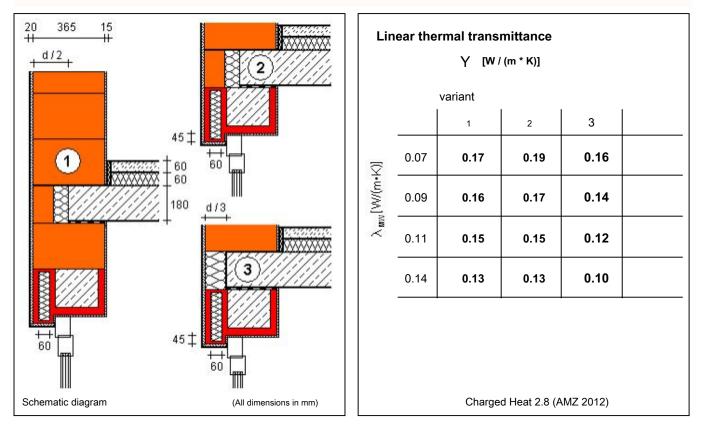
The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the outer masonry. The window has a U-value of $0.95 \text{ W} / (\text{m}^2\text{K})$ to (soft wood, plastic profile). The design with brick flat falls is limited depending on the static to specific window widths. At 300 and 365 mm masonry 2 flat drops are assumed, each with 115 mm thickness, at 425 and 490 mm masonry with 2 * 175 mm. The intermediate space is filled with thermal insulation, the thickness of the ceiling face insulation including Abmauerziegel is d / 2 with the thermal conductivity of 0.035 W / (mK). The thermal conductivity of Abmauerziegels has a negligible impact on the Psi - values.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 54 is given.



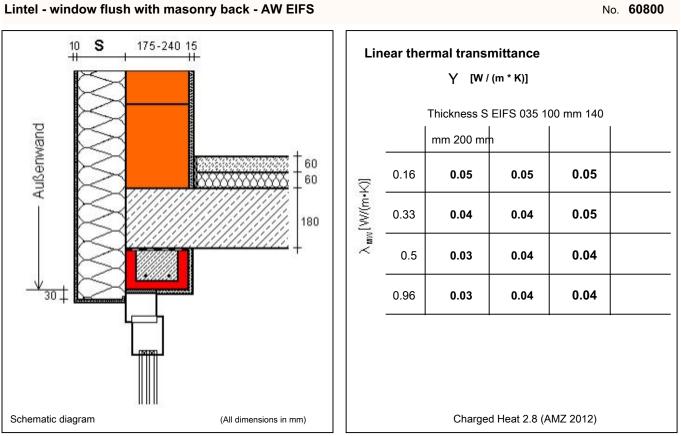
Lintel with WU-shell with stop - AW HLz



The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the outer masonry of the wall thickness of 365 mm. The window has a U-value of $0.95 \text{ W} / (\text{m}^2\text{K})$ to (soft wood, plastic profile). The version with a WU-shell with stop is calculated for variants A, B and C. In cases A and B the thickness of the ceiling face insulation including Abmauerziegel d / 2 is the thermal conductivity of 0.035 W / (mK), in the case of C d / 3 system. The component dimensions of the cases A, B and C are identical unless other measurements are made. The thermal conductivity of Abmauerziegels has a negligible impact on the Psi - values. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 image 54 is added 0.15 W / (m K) for psi values <=.





Lintel - window flush with masonry back - AW EIFS

The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the EIFS and thermal conductivities of the rear masonry wall thicknesses of 175-240 mm.

The window has a U-value of 0.95 W / (m²K) to (soft wood, plastic profile). The window mounting position is on the outside flush with the brick backing. The thermal conductivity of the EIFS is assumed to be 0.035 W / (mK). The window frame is about contained by 30 mm insulation. The brick lintel is constructed of flat lintels / U-shells. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

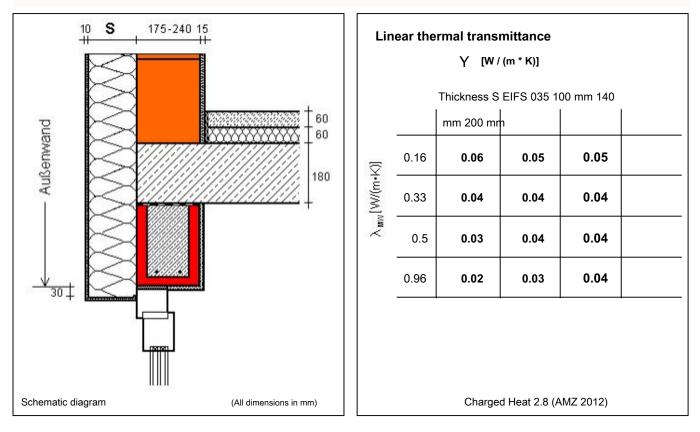
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 55 is given.

Lintel U-shell - window flush with brick backing



Wöllstein Ziegelhüttenstr. 40-42

No. 60805



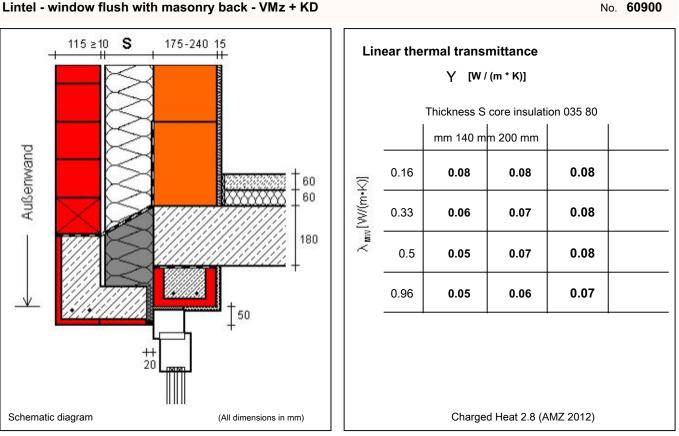
The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the EIFS and thermal conductivities of the rear masonry wall thicknesses of 175-240 mm.

The window has a U-value of $0.95 \text{ W} / (\text{m}^2\text{K})$ to (soft wood, plastic profile). The window mounting position is on the outside flush with the brick backing. The thermal conductivity of the EIFS is assumed to be 0.035 W / (mK). The window frame is about contained by 30 mm insulation. The lintel is constructed of brick-U-shapes.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 55 is for psi values <= 0.05, where W / (m K), for overlying values in masonry of the thermal conductivity of <= 0.16 W / (m K) according to para. 3.5 a) and b) also.





The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the core insulation and thermal conductivities of the rear masonry wall thicknesses of 175-240 mm. The psi values apply to thicknesses of the front brickwork> = 90 mm.

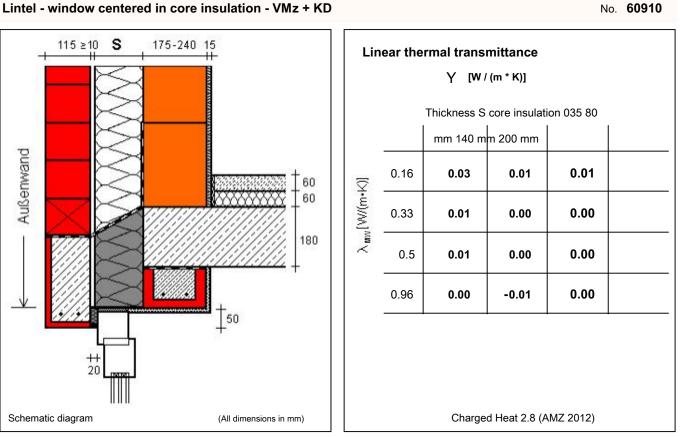
The window has a U-value of 0.95 W / (m K) to (soft wood, plastic profile). The window mounting position is on the outside flush with the brick backing. The fall of the facing wall is constructed as a reinforced concrete prefabricated. The thermal conductivity of the core insulation is assumed to be 0.035 W / (m K). The window frame is insulated with 20 mm insulation and 50 mm overlap. The brick lintel is constructed of flat lintels / U-shells.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 57 is given.

POROT

Wöllstein Ziegelhüttenstr. 40-42



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the core insulation and thermal conductivities of the rear masonry wall thicknesses of 175-240 mm. The psi values apply to thicknesses of the front brickwork> = 90 mm.

The window has a U-value of 0.95 W / (m²K) to (soft wood, plastic profile). The windows installation position is centered in thermal insulation level. The fall of the facing wall is constructed as a reinforced concrete prefabricated. The thermal conductivity of the core insulation is assumed to be 0.035 W / (mK). The window frame is insulated with 20 mm insulation and 50 mm overlap. The brick lintel is constructed of flat lintels / U-shells.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

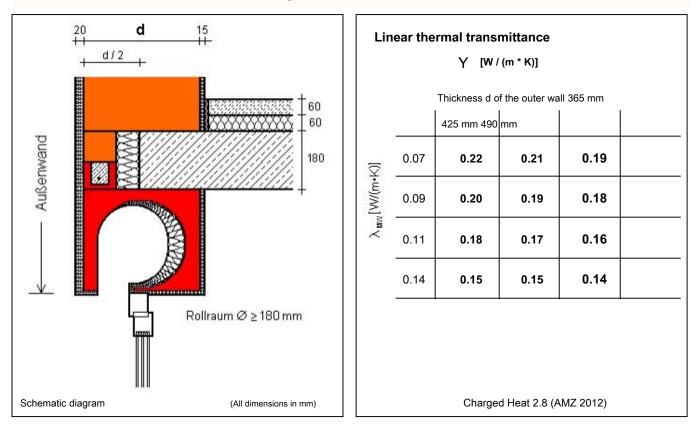
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 56 is given.

Brick shutter box - AW HLz with Abmauerziegel



Wöllstein Ziegelhüttenstr. 40-42

No. 61000



The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the outer masonry. The Psi-values apply for wall thicknesses from 365 to 490 mm.

The window has a U-value of $0.95 \text{ W} / (\text{m}^2\text{K})$ to (soft wood, plastic profile). The thickness of the ceiling face insulation including the brick flat lintel / walling is d / 2 of the wall thickness, the thermal conductivity of 0.035 W / (mK). The brick-shutter box is closed on the room side. The windows installation position depends on the geometry of the roller shutter box. The thermal conductivity of Abmauerziegels has a negligible impact on the Psi - values. The roller shutter box is in the U-value - not separately identifying as flat component to be considered and included in the dimensions of the outer wall.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

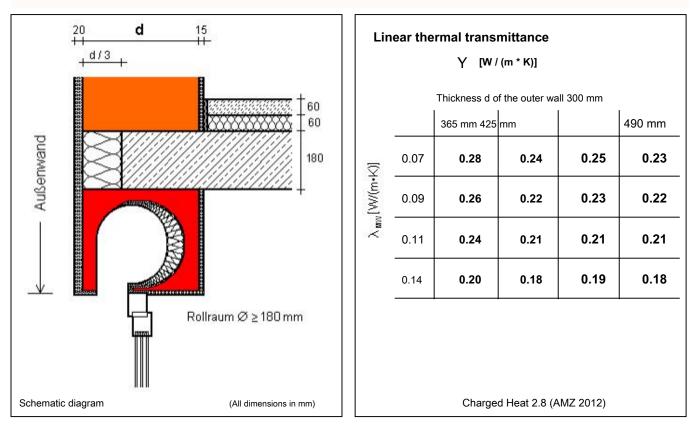
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 61 is given.

Brick shutter box - AW HLz with face insulation

Wöllstein Ziegelhüttenstr. 40-42



No. 61010



The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the outer masonry. The window has a U-value of $0.95 \text{ W} / (\text{m}^2\text{K})$ to (soft wood, plastic profile). The thickness of the ceiling end insulation is d / 3 that is 100 to 160 mm, the thermal conductivity of 0.035 W / (mK). The brick-shutter box is closed on the room side. The windows installation position depends on the geometry of the roller shutter box.

The roller shutter box is in the U-value - not separately identifying as flat component to be considered and included in the dimensions of the outer wall.

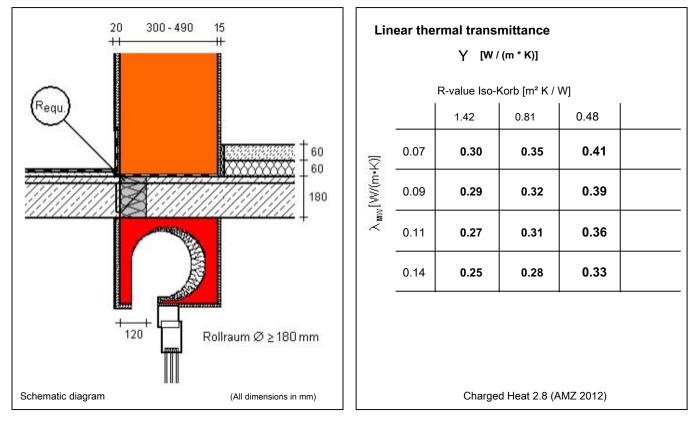
The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 60 is given.



Brick shutter box - AW HLz with Iso-Korb

No. 61020



The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the external masonry and various thermal resistances R-equivalent of the insulating body for thermal decoupling of the balcony slab. The Requ - values decrease with increasing amount of steel in the insulation element. The window has a U-value of 0.95 W / (m²K) to (soft wood, plastic profile). The insulating element has a thickness of 120 mm. The brick-shutter box is closed on the room side. The windows installation position depends on the geometry of the roller shutter box. The results apply to thicknesses of the outer walls 300 to 490 mm. The roller shutter box is in the U-value - not separately identifying as flat component to be considered and included in the dimensions of the outer wall.

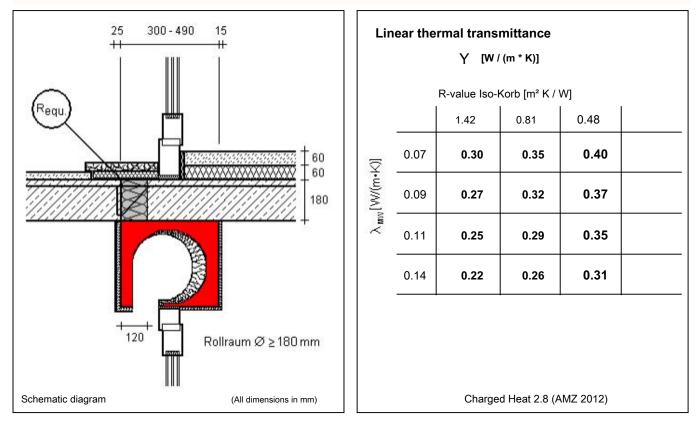
The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 (analogously Figure 70) is given on the basis of compliance with the design principle.



Brick shutter box - window with Iso-Korb

No. 61030



The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the external masonry and various thermal resistances R-equivalent of the insulating body for thermal decoupling of the balcony slab. The Requ - values decrease with increasing amount of steel in the insulation element. The insulating element has a thickness of 120 mm. The windows have Uw values of 0.95 W / (m K) to (soft wood, plastic profile). The brick-shutter box is closed on the room side. The windows installation position depends on the geometry of the roller shutter box. The threshold window of the door is outside via contained with 30 mm insulation.

The results apply to thicknesses of the outer walls 300 to 490 mm. The roller shutter box is in the U-value - not separately identifying as flat component to be considered and included in the dimensions of the outer wall.

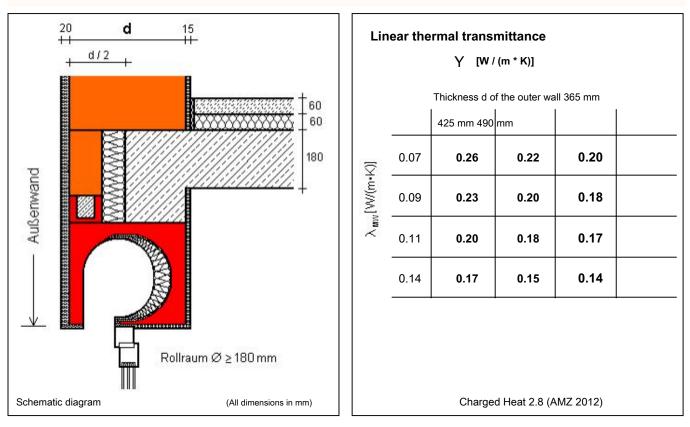
The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 (analogously Figure 70) is given on the basis of compliance with the design principle.

Wöllstein Ziegelhüttenstr. 40-42



No. 61050



Brick shutter box - AW HLz with high Abmauerziegel

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the outer masonry. The Psi-values apply for wall thicknesses from 365 to 490 mm.

The window has a U-value of 0.95 W / (m K) to (soft wood, plastic profile). The thickness of the ceiling face insulation including the brick flat lintel / walling is d / 2 of the wall thickness, the thermal conductivity of 0.035 W / (mK). The brick-shutter box is closed on the room side. The windows installation position depends on the geometry of the roller shutter box. The thermal conductivity of Abmauerziegels has a negligible impact on the Psi - values. The roller shutter box is in the U-value - not separately identifying as flat component to be considered and included in the dimensions of the outer wall.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 61 is given.

Wöllstein Ziegelhüttenstr. 40-42



20 d 15 Linear thermal transmittance ++ Y [W / (m * K)] Thickness d of the outer wall 300 mm 60 490 mm 60 365 mm 425 mm Außenwand 180 0.07 0.30 0.28 0.26 0.25 A_{MW}[\\\\(m•K)] 0.09 0.27 0.25 0.24 0.23 0.11 0.24 0.23 0.22 0.21 0.14 0.20 0.19 0.19 0.19 d/3 Rollraum Ø ≥ 180 mm Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

Brick shutter box - AW HLz with face insulation high

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the outer masonry. The window has a U-value of 0.95 W / (m K) to (soft wood, plastic profile). The thickness of the ceiling end insulation is d / 3 between 100 and 160 mm the thermal conductivity of 0.035 W / (m K). The brick-shutter box is closed on the room side. The windows installation position depends on the geometry of the roller shutter box.

The roller shutter box is in the U-value - not separately identifying as flat component to be considered and included in the dimensions of the outer wall.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 60 is given.

Wöllstein Ziegelhüttenstr. 40-42



No. 61200

20 d 15 Linear thermal transmittance + d/2 Y [W / (m * K)] Thickness d of the outer wall 365 mm 60 60 425 mm 490 mm Außenwand 180 0.07 0.23 0.19 0.18 A_{MW}[\\\\(m•K)] 0.09 0.20 0.18 0.16 0.11 0.18 0.16 0.15 0.14 0.15 0.13 0.13 Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

Brick-blind box - AW HLz with ceiling Abmauerelement

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the outer masonry. The window has a U-value of 0.95 W / (m²K) to (soft wood, plastic profile). The thickness of the ceiling face of the insulation and ceiling Abmauerelements is d / 2 of the wall thickness, the thermal conductivity of the thermal insulation 0.035 W / (mK). The brick-blind box is constructed differently depending on the wall thickness. The windows installation position depends on the geometry of the blind box. The thermal conductivity of Abmauerelements has a negligible impact on the Psi - values.

The shutter box is in the U-value - not separately identifying as flat component to be considered and included in the dimensions of the outer wall.

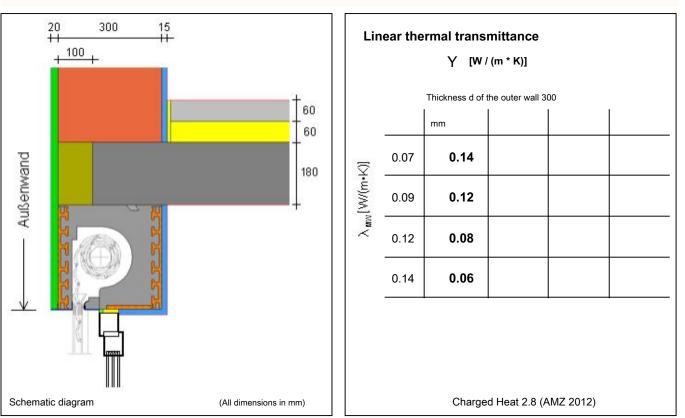
The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 61 is given.

**JUWÖ POROTON

No. 62010

Wöllstein Ziegelhüttenstr. 40-42



Roka-Lith-Neoline-RG-RR165 mm - AW HLz 300 with face insulation

The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the outer masonry of the wall thickness of 300 mm. The window has a U-value of 0.95 W / (m K) to (soft wood, plastic profile). The thickness of the ceiling end insulation is d / 3 = 100 mm, the thermal conductivity of 0.035 W / (m K). The roller shutter box is closed on the room side. The diameter of the roll space is 165 mm. The windows installation position depends on the geometry of the roller shutter box. The roller shutter box is in the U-value - not separately identifying as flat component to be considered and included in the dimensions of the outer wall.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the Roka-Lith Neoline RG is to be understood as a schematic diagram and adjust for the particular application. The Psi-values and the basic sketch has provided Beck + Heun, Mengerskirchen available.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 60 is given.

Wöllstein Ziegelhüttenstr. 40-42

**JUWÖ POROTON

No. 62020

20 300 15 Linear thermal transmittance ++ 100 Y [W / (m * K)] Thickness d of the outer wall 300 60 mm 60 Außenwand 0.07 0.26 λ_{mw}[\/\/(m•K)] 180 0.09 0.23 0.12 0.20 0.14 0.18 Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

Roka-Lith-Neoline-RG-RR210 mm - AW HLz 300 with face insulation

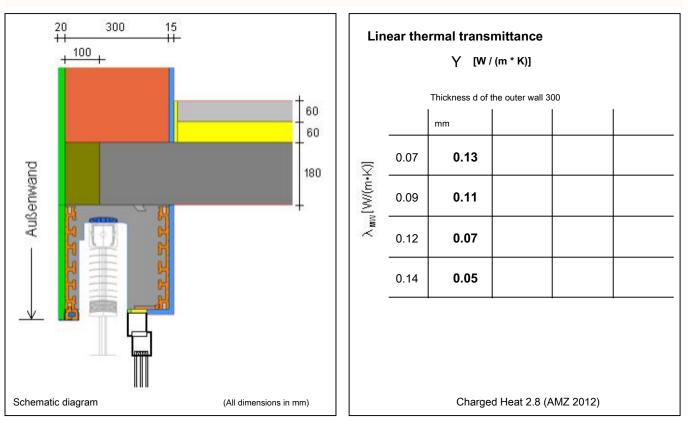
The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the outer masonry of the wall thickness of 300 mm. The window has a U-value of 0.95 W / (m K) to (soft wood, plastic profile). The thickness of the ceiling end insulation is d / 3 = 100 mm, the thermal conductivity of 0.035 W / (m K). The roller shutter box is closed on the room side. The diameter of the roll space is 210 mm. The windows installation position depends on the geometry of the roller shutter box. The roller shutter box is in the U-value - not separately identifying as flat component to be considered and included in the dimensions of the outer wall.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the Roka-Lith Neoline RG is to be understood as a schematic diagram and adjust for the particular application. The Psi-values and the basic sketch has provided Beck + Heun, Mengerskirchen available.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 60 is given.

Wöllstein Ziegelhüttenstr. 40-42





Roka-Lith-shadow Neoline - AW HLz 300 with face insulation

The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the outer masonry of the wall thickness of 300 mm. The window has a U-value of 0.95 W / (m K) to (soft wood, plastic profile). The thickness of the ceiling end insulation is d / 3 = 100 mm, the thermal conductivity of 0.035 W / (m K). The Venetian blind is closed on the room side. The windows installation position depends on the geometry of the Raffstorekastens.

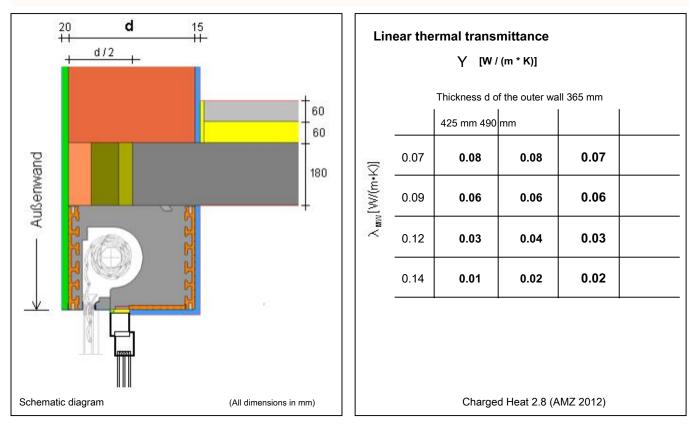
The Venetian blind is in the U-value - not separately identifying as flat component to be considered and included in the dimensions of the outer wall.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the Roka-Lith-Shodow Neoline is to be understood as a schematic diagram and adjust for the particular application. The Psi-values and the basic sketch has provided Beck + Heun, Mengerskirchen available.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 60 is given.

Wöllstein Ziegelhüttenstr. 40-42





Roka-Lith-Neoline-RG-RR165 mm - AW HLz with Abmauerziegel

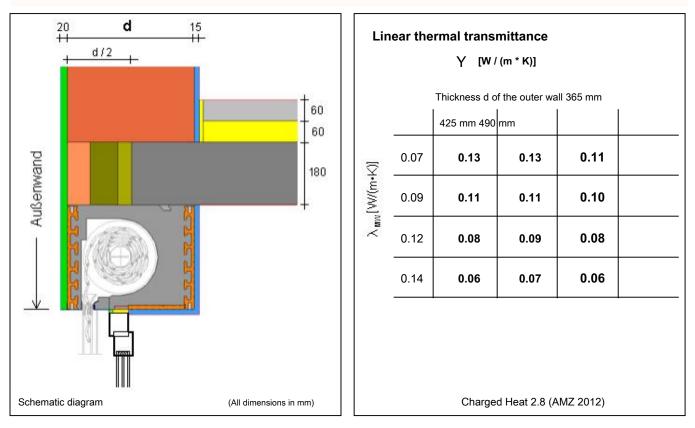
The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the outer masonry for the wall thicknesses of 365-490 mm. The window has a U-value of $0.95 \text{ W} / (\text{m}^2\text{K})$ to (soft wood, plastic profile). The roller shutter box is closed on the room side. The diameter of the roll space is 165 mm. The thickness of the ceiling face insulation including the brick Abmauerelement is d / 2 of the wall thickness, the thermal conductivity of 0.035 W / (mK). The brick-shutter box is closed on the room side. The windows installation position depends on the geometry of the roller shutter box. The thermal conductivity of Abmauerelements has a negligible impact on the Psi - values.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the Roka-Lith Neoline RG is to be understood as a schematic diagram and adjust for the particular application. The Psi-values and the basic sketch has provided Beck + Heun, Mengerskirchen available.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 61 is given.

Wöllstein Ziegelhüttenstr. 40-42





Roka-Lith-Neoline-RG-RR210 mm - AW HLz with Abmauerziegel

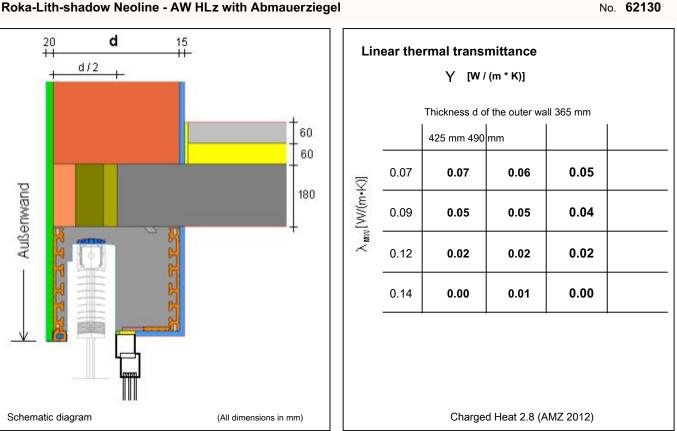
The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the outer masonry for the wall thicknesses of 365-490 mm. The window has a U-value of $0.95 \text{ W} / (\text{m}^2\text{K})$ to (soft wood, plastic profile). The roller shutter box is closed on the room side. The diameter of the roll space is 210 mm. The thickness of the ceiling face insulation including the brick Abmauerelement is d / 2 of the wall thickness, the thermal conductivity of 0.035 W / (mK). The brick-shutter box is closed on the room side. The windows installation position depends on the geometry of the roller shutter box. The thermal conductivity of Abmauerelements has a negligible impact on the Psi - values.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the Roka-Lith Neoline RG is to be understood as a schematic diagram and adjust for the particular application. The Psi-values and the basic sketch has provided Beck + Heun, Mengerskirchen available.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 61 is given.

POROTO

Wöllstein Ziegelhüttenstr. 40-42



Roka-Lith-shadow Neoline - AW HLz with Abmauerziegel

The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the outer masonry for the wall thicknesses of 365-490 mm. The window has a U-value of 0.95 W / (m²K) to (soft wood, plastic profile). The Venetian blind is closed on the room side. The thickness of the ceiling face insulation including the brick Abmauerelement is d / 2 of the wall thickness, the thermal conductivity of 0.035 W / (mK). The windows installation position depends on the geometry of the Raffstorekastens. The thermal conductivity of Abmauerelements has a negligible impact on the Psi - values. The Venetian blind is in the U-value - not separately identifying as flat component to be considered and included in the dimensions of the outer wall.

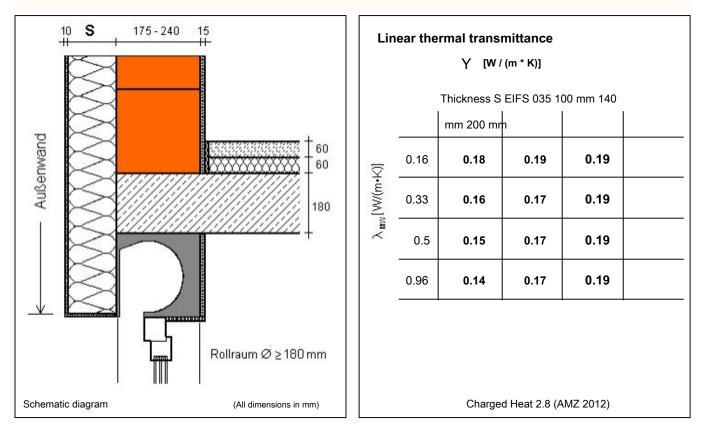
The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the Roka-Lith-Shodow Neoline is to be understood as a schematic diagram and adjust for the particular application. The Psi-values and the basic sketch has provided Beck + Heun, Mengerskirchen available.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 61 is given.



Wöllstein Ziegelhüttenstr. 40-42

Shutter box - AW with EIFS



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the EIFS and thermal conductivities of the rear brickwork for the wall thicknesses of 175-240 mm.

The window has a U-value of 0.95 W / (m²K) to (soft wood, plastic profile). The element shutter box is closed on the room side. The windows installation position depends on the geometry of the roller shutter box. The window frames should be insulated in addition! The roller shutter box is in the U-value - not separately identifying as flat component to be considered and included in the dimensions of the outer wall.

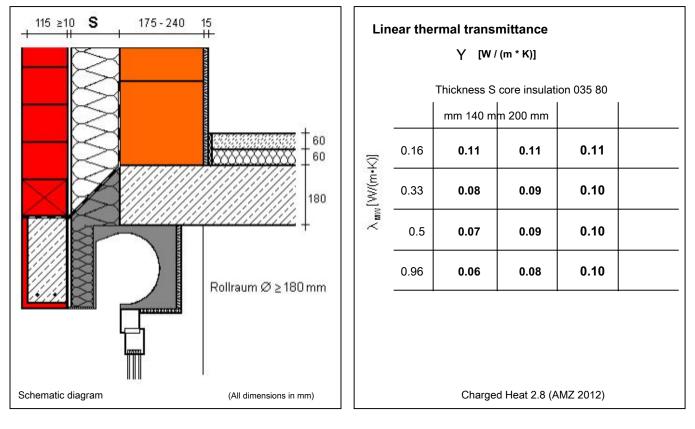
The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 62 is given.



Shutter box - window center - AW with VMz

No. 65100



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the core insulation and thermal conductivities of the rear brickwork for the wall thicknesses of 175-240 mm. The psi values apply to thicknesses of the front brickwork> = 90 mm.

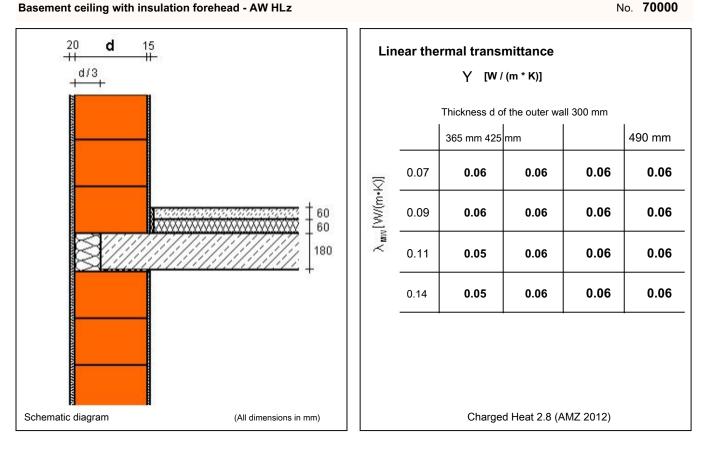
The window has a U-value of $0.95 \text{ W} / (\text{m}^2\text{K})$ to (soft wood, plastic profile). The insulated member rolling shutter box is closed on the room side. The window installation position with the shutter box is outside flush with the brick backing. The thermal insulation against the roller shutter box is derived from its installation position and the thickness of the core insulation. The roller shutter box is in the U-value - not separately identifying as flat component into consideration and in the dimensions of the outer wall included (via measure). The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 63 is given.



Wöllstein Ziegelhüttenstr. 40-42

No. 70000



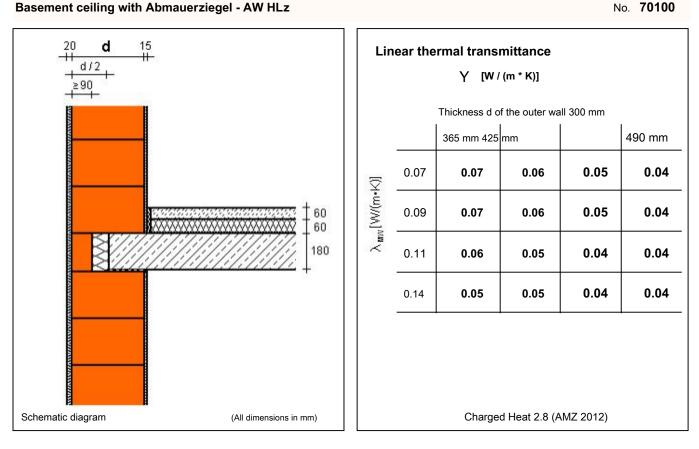
The calculation of length-based heat transfer coefficient is carried out in dependence of different wall thicknesses d and thermal conductivities of the brickwork. The thickness of the insulation off the ceiling face is d / 3 that is between 100 and 160 mm having a thermal conductivity of 0.035 W / (mK).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 71 is given.



No. 70100

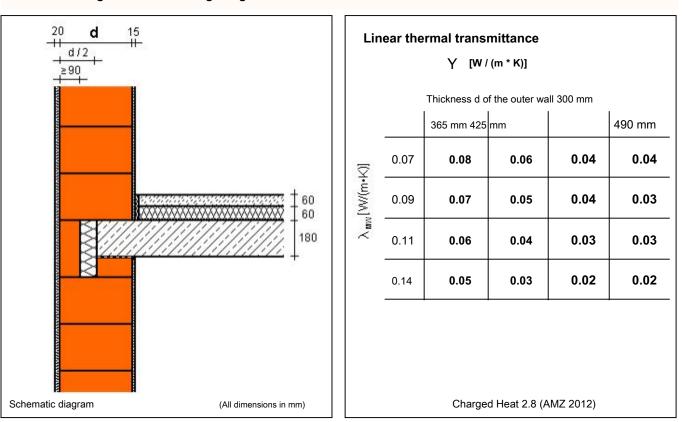


The calculation of length-based heat transfer coefficient is carried out in dependence of different wall thicknesses d and thermal conductivities of the brickwork. The thickness of the ceiling end insulation is included Abmauerziegel d / 2 with a thermal conductivity of 0.035 W / (mK). The thermal conductivity of Abmauerziegels has a negligible impact on the Psi - values.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 71 is for psi values <= 0.06 W / (m K), where in principle, for higher values in accordance with paragraph 3.5 a) and b) also..





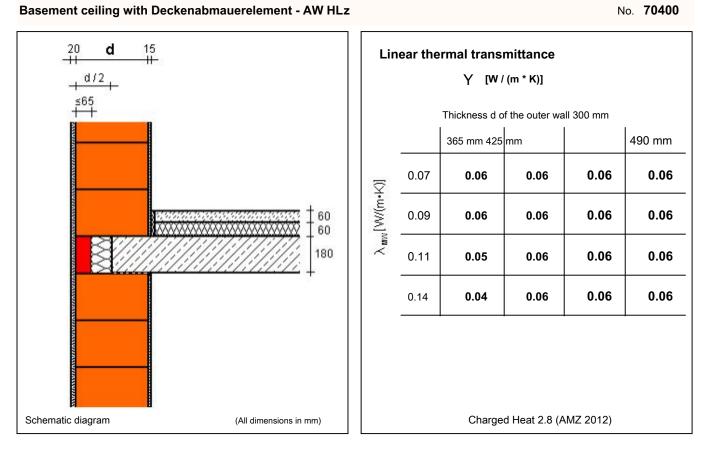
Basement ceiling with Abmauerziegel High - AW HLz

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry. The thickness of the ceiling end insulation is included Abmauerziegel d / 2 with a thermal conductivity of 0.035 W / (mK). The thermal conductivity of Abmauerziegels and height compensation tile has a negligible impact on the Psi - values. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 71 is for psi values <= 0.06 W / (m K), where in principle, for higher values in accordance with paragraph 3.5 a) and b) also..



Wöllstein Ziegelhüttenstr. 40-42



The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d thermal conductivities of the masonry.

The thickness of the heat insulation behind the Deckenabmauerelement, including Abmauerelement is d / 2 with a thermal conductivity of 0.035 W / (mK). The thermal conductivity of Abmauerelements has a negligible impact on the Psi - values. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

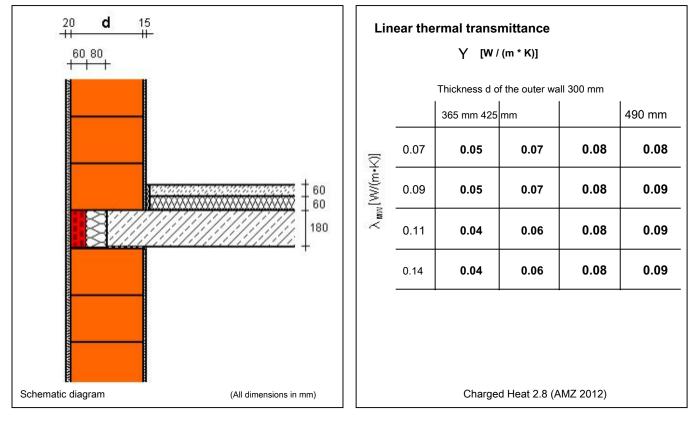
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 71 is given.



Wöllstein Ziegelhüttenstr. 40-42

Basement ceiling with DERA 60 + 80 - AW HLz

No. 70410



The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d thermal conductivities of the masonry.

The thickness of the heat insulation behind the DERA - Deckenabmauerziegel is 80 mm having a thermal conductivity <= 0.035 W / (mK).

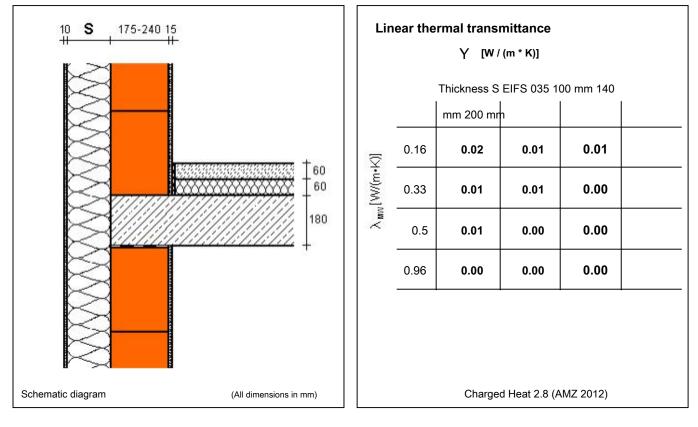
The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 71 is given.



Geschossdeckenauflager - AW with EIFS

No. **74000**



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the EIFS and thermal conductivities of the rear brickwork for the wall thicknesses of 175 -240 mm.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 72 is given.



Wöllstein Ziegelhüttenstr. 40-42

Geschossdeckenauflager - AW with VMz + core insulation

115 S 175-240 15	L	inear th.	tear thermal transmittance				
			mm 140 m	m 200 mm			
	+ 🛛 🗟	0.16	0.03	0.01	0.01		
		0.33	0.02	0.01	0.00		
		0.5	0.01	0.00	0.00		
	50	0.96	0.00	0.00	0.00		
Schematic diagram	(All dimensions in mm)	Charged Heat 2.8 (AMZ 2012)					

The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the core insulation and thermal conductivities of the rear brickwork for the wall thicknesses of 175-240 mm. The psi values apply to thicknesses of the front brickwork> = 90 mm.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 73 is given.



Linear thermal transmittance ≥180 Y [W / (m * K)] Thickness d of the outer wall 300 mm 490 mm 365 mm 425 mm 0.07 0.01 0.03 0.04 0.06 λ_{mw}[\///(m•K)] 60 60 0.09 -0.01 0.01 0.03 0.04 180 0.11 -0.03 0.00 0.02 0.03 0.00 0.14 -0.06 -0.03 0.02 ≥ 90 ≥80 d 15 20 Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

Eaves rafter roof, beh. DG, AW HLz Abmauerziegel

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry and 4108 based on the U-value of the Gefachs for better comparability with Supplement 2 DIN. The thermal insulation between the rafters has a minimum thickness of 180 mm the thermal conductivity of 0.035 W / (m K). The U-value of the complete roof structure is $<= 0.2 W / (m^2 K)$. The ceiling face of the jamb and are provided with a minimum insulation (035) of 80 mm, the thermal conductivity of Abmauerziegels is of little influence. The calculation results also apply to thicknesses of roof insulation> 180 mm. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 85 is given.



Linear thermal transmittance ≥180 Y [W / (m * K)] Thickness d of the outer wall 300 mm 490 mm 365 mm 425 mm 0.07 0.03 0.03 0.03 0.02 λ_{mw}[\/\/(m•K)] 0.09 0.01 0.02 0.02 0.02 60 60 0.11 -0.02 0.00 0.00 0.01 180 0.14 -0.04 -0.02 -0.01 -0.01 d/3 d 20 15 Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

Eaves rafter roof, beh. DG - AW HLz forehead insulation

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry and 4108 based on the U-value of the Gefachs for better comparability with Supplement 2 DIN. The thermal insulation between the rafters has a minimum thickness of 180 mm the thermal conductivity of 0.035 W / (mK). The U-value of the complete roof structure is <= 0.2 W / (m²K). The ceiling face and the jamb 3 are provided between 100 and 160 mm with a thermal insulation (035) of d / dh.

The calculation results also apply to thicknesses of roof insulation> 180 mm. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 85 is given.



Linear thermal transmittance ≥180 Y [W / (m * K)] Thickness d of the outer wall 300 mm 365 mm 425 mm 490 mm 0.07 0.02 0.02 0.02 0.02 60 Х _{ШW} [\\\/(m•K)] 60 0.09 0.00 0.01 0.01 0.01 180 0.11 -0.01 0.00 0.00 0.00 0.14 -0.04 -0.02 -0.01 -0.01 d/3 15 d 20 Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

Eaves purlin, beh. DG - AW HLz forehead insulation

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry and 4108 based on the U-value of the Gefachs of the inclined roof for better comparability with Supplement 2 DIN.

The thermal insulation between the rafters has a minimum thickness of 180 mm the thermal conductivity of 0.035 W / (mK). The U-value of the roof is <= 0.2 W / (mK). The ceiling face and the eaves purlin 3 are provided between 100 and 160 mm with a thermal insulation (035) of d / dh.

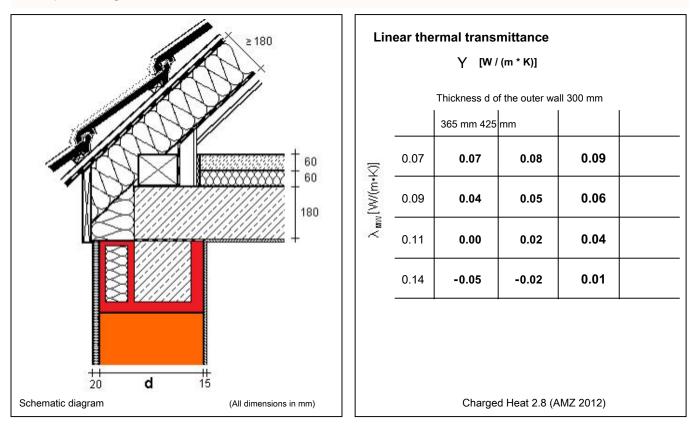
The calculation results also apply to thicknesses of roof insulation> 180 mm. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 85 is given.



No. 80125

Eaves purlin, ring beam WU-shell - AW HLz



The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry and 4108 based on the U-value of the Gefachs of the inclined roof for better comparability with Supplement 2 DIN.

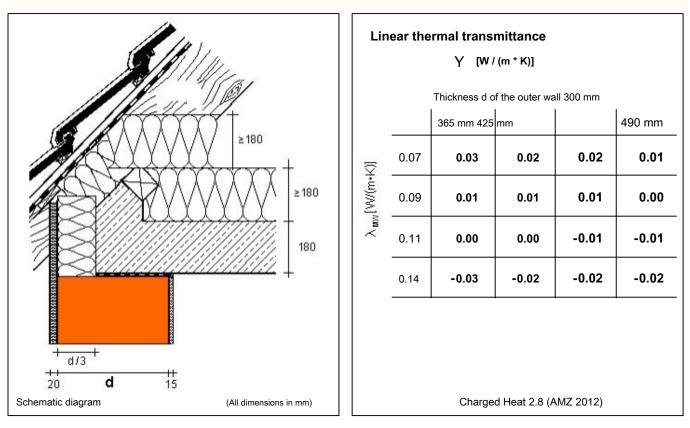
The thermal insulation between the rafters has a minimum thickness of 180 mm the thermal conductivity of 0.035 W / (mK). The U-value of the roof is <= 0.2 W / (mK). The ceiling face and the eaves purlin 3 are provided between 100 and 160 mm with a thermal insulation (035) of d / dh.

The calculation results also apply to thicknesses of roof insulation> 180 mm. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 85 is given.







Eaves rafter roof, unheated. DG, AW HLz forehead insulation

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry and 4108 based on the U-value of the Gefachs for better comparability with Supplement 2 DIN. The thermal insulation between the rafters and on the top floor ceiling has a minimum thickness of 180 mm the thermal conductivity of 0.035 W / (mK). The U-value of the top floor ceiling is <= 0.2 W / (m K). The ceiling face and the jamb 3 are provided between 100 and 160 mm with a thermal insulation (035) of d / dh. The calculation results also apply to thicknesses of roofing insulation> 180 mm. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 79 is given.

Wöllstein Ziegelhüttenstr. 40-42



Ring anchor U-shell insulated outside - pent roof eaves

d

Schematic diagram

a.		Linear thermal transmittance Ү [W / (m * K)]							
1 ≥ 180		Thickness d of the outer wall 300 mm							
			365 mm 425	mm		490 mm			
- t	⊽	0.07	0.03	0.04	0.04	0.04			
	λ _{MW} [\\//(m•K)]	0.09	0.00	0.01	0.02	0.02			
	λaw	0.11	-0.03	-0.01	0.00	0.00			
		0.14	-0.08	-0.05	-0.04	-0.03			
ions in mm)			Charge	d Heat 2.8 (A	MZ 2012)				

60 ++ 20 || 15

(All dimens

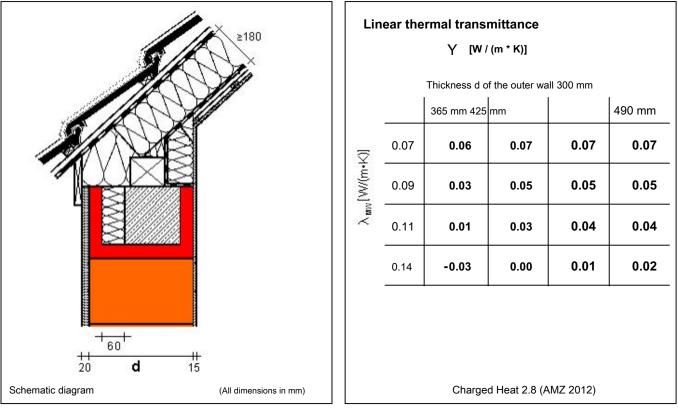
The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry and 4108 based on the U-value of the Gefachs for better comparability with Supplement 2 DIN. The thermal insulation between the rafters has a minimum thickness of 180 mm the thermal conductivity of 0.035 W / (mK). The U-value of the complete roof structure is <= 0.2 W / (m²K). The thickness of the insulation arranged on the outside (035) of the ring armature within the U-cup is 60 mm.

The calculation results also apply to thicknesses of roof insulation> 180 mm. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 83 is given.



No. 80200



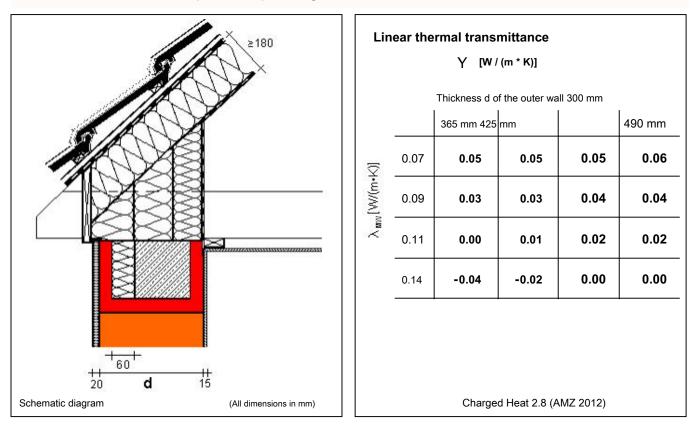
Eaves purlin - Ring anchor U-shell außengedäm

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry and 4108 based on the U-value of the Gefachs for better comparability with Supplement 2 DIN. The thermal insulation between the rafters has a minimum thickness of 180 mm the thermal conductivity of 0.035 W / (mK). The U-value of the complete roof structure is <= 0.2 W / (m²K). The thickness of the insulation arranged on the outside (035) of the ring armature within the U-cup is 60 mm.

The calculation results also apply to thicknesses of roof insulation> 180 mm. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 83 is given.





Eaves Rafter roof, beh. Roof space, U-cup außenged.

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry and 4108 based on the U-value of the Gefachs for better comparability with Supplement 2 DIN. The thermal insulation between the rafters of the roof binder has a minimum thickness of 180 mm the thermal conductivity of 0.035 W / (mK). The U-value of the roof is <= 0.2 W / (m K). The thickness of the insulation arranged on the outside (035) of the ring armature within the U-cup is 60 mm. The calculation results also apply to thicknesses of roof insulation> 180 mm. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 83 is given.



Linear thermal transmittance 180 60/100 ≥150 ++ d 15 Schematic diagram (All dimensions in mm)

		Υ [w /	(m * K)]		
		Thickness d o	f the outer wa	ill 300 mm	
		365 mm 425	mm		490 mm
Ŷ	0.07	0.04	0.01	0.02	0.01
Х _{МW} [\\\(m•K)]	0.09	0.02	-0.01	0.00	0.00
Хmи	0.11	-0.01	-0.03	-0.02	-0.02
	0.14	-0.04	-0.05	-0.04	-0.04
		Charge	d Heat 2.8 (A	MZ 2012)	

Binder eaves roof anchor ring U-cup, unheated. attic

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry and 4108 based on the U-value of the Gefachs the collar beam position for better comparability with Supplement 2 DIN. The thermal insulation between the collar beam has a minimum thickness of 180 mm the thermal conductivity of 0.035 W / (mK). The U-value of the beamed ceiling is <= 0.2 W / (m²K). The thickness of the insulation arranged on the outside (035) of the ring armature within the U-cup is 60 mm at 300 mm wall thickness, with wall thicknesses> 300 mm is necessary to provide thermal insulation 100 mm. The calculation results also apply to thicknesses of insulation of the wood-beamed ceiling> 180 mm. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 75 is for psi values <= 0.02 W / (m K), where in principle, for higher values in accordance with paragraph 3.5 a) and b) also ...

Binder eaves roof anchor ring WU-shell, unheated. attic

Wöllstein Ziegelhüttenstr. 40-42



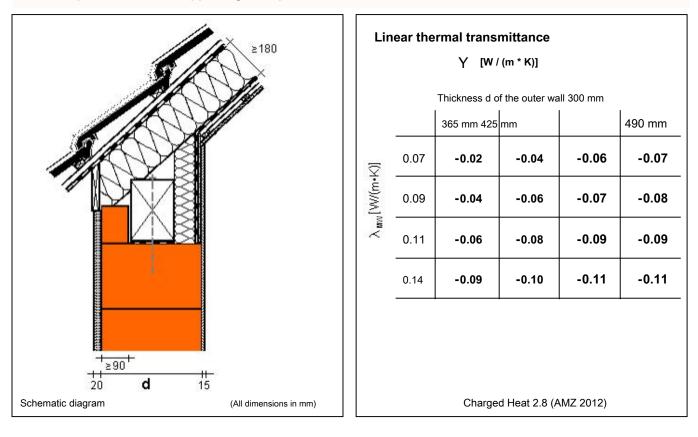
Linear thermal transmittance Y [W / (m * K)] Thickness d of the outer wall 300 mm 365 mm 425 mm 0.07 0.00 0.01 0.02 λ_{mw}[\\\\(m•K)] 0.09 -0.02 -0.01 0.00 ≥ 180 0.11 -0.05 -0.03 -0.02 -0.08 -0.04 0.14 -0.05 d 20 15 Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry and 4108 based on the U-value of the Gefachs the collar beam position for better comparability with Supplement 2 DIN. The thermal insulation between the collar beam has a minimum thickness of 180 mm the thermal conductivity of 0.035 W / (mK). The U-value of the beamed ceiling is <= 0.2 W / (m²K). The calculation results also apply to thicknesses of insulation of the wood-beamed ceiling> 180 mm. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 75 is given.



No. 80230



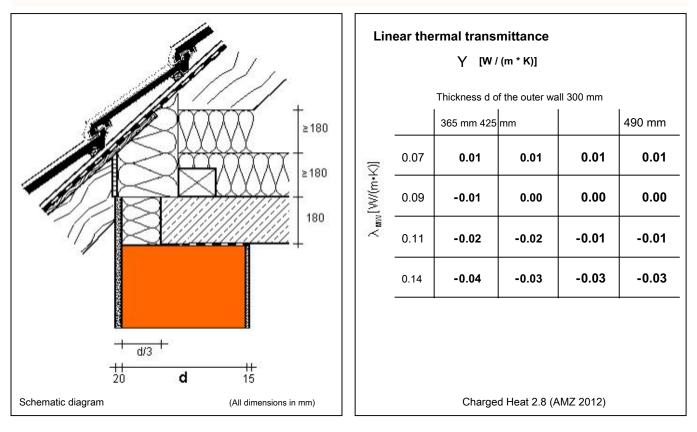
Knee wall purlin, beh. DG, supporting eave plate

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry and 4108 based on the U-value of the Gefachs for better comparability with Supplement 2 DIN. The thermal insulation between the rafters has a minimum thickness of 180 mm the thermal conductivity of 0.035 W / (mK). The U-value of the roof is <= 0.2 W / (m²K). The load-bearing and tied back over the knee Stock used in reinforced concrete pillars eaves purlin is covered on the outside with a Abmauerstein. The inside cavity before the eaves purlin is filled with thermal insulation (035). The thermal conductivity of Abmauerziegels is of secondary importance.

The calculation results also apply to thicknesses of roof insulation> 180 mm. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 83 is given.





Eaves purlin, unheated. DG, AW HLz forehead insulation

The calculation of length-based heat transfer coefficient is carried out in dependence of different wall thicknesses d and thermal conductivities of the brickwork. The thermal insulation on the top floor ceiling is 180 mm thick and has a thermal conductivity of 0.035 W / (m8 K). The U-value of the roof deck is <= 0.2 W / (m K). The ceiling face and the eaves purlin are provided with a minimum insulation of d / 3 that is 100 to 160 mm. The calculation results also apply to thicknesses of roofing insulation> 180 mm and when using a wood-beamed ceiling.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

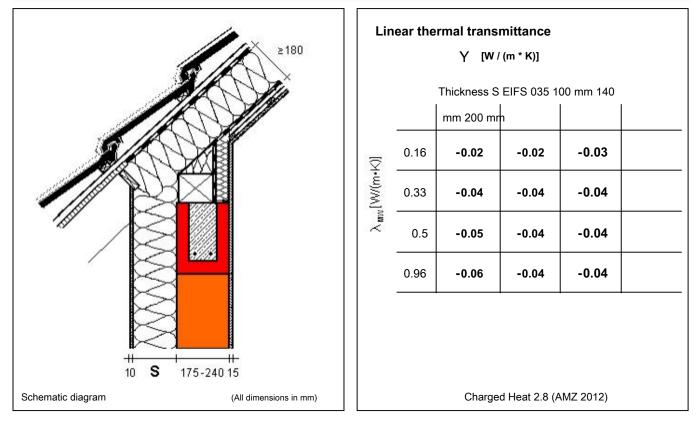
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 75 is given.

Wöllstein Ziegelhüttenstr. 40-42



Knee wall purlin, beh. DG - AW with EIFS

No. 80400



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the EIFS and thermal conductivities of the rear brickwork for the wall thicknesses of 175-240 mm. For better comparability with supplementary sheet 2 DIN 4108 of Psi-value is based on the U-value of Gefachs.

The thermal insulation between the rafters has a minimum thickness of 180 mm the thermal conductivity of 0.035 W / (mK). The U-value of the roof is <= 0.2 W / (m²K). The calculation results also apply to thicknesses of roof insulation> 180 mm. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

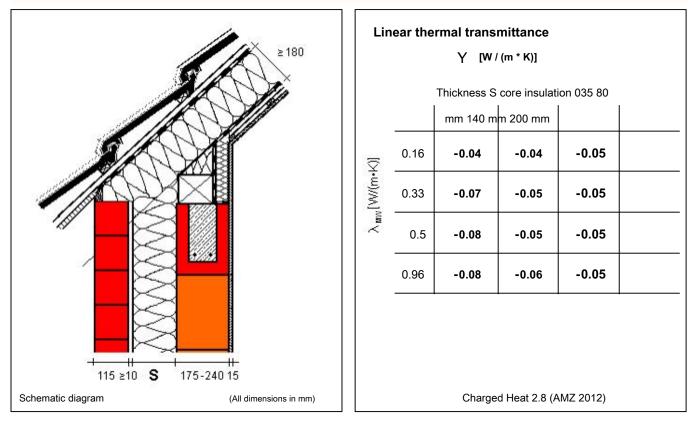
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 84 is given.

Wöllstein Ziegelhüttenstr. 40-42



Jamb-purlin, beh. DG - AW with VMz

No. 80500



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the core insulation and thermal conductivities of the rear brickwork for the wall thicknesses of 175-240 mm. For better comparability with supplementary sheet 2 DIN 4108 of Psi-value is based on the U-value of Gefachs. The psi values apply to thicknesses of the front brickwork> = 90 mm.

The thermal insulation between the rafters has a minimum thickness of 180 mm the thermal conductivity of 0.035 W / (mK). The U-value of the roof is <= 0.2 W / (m K). The calculation results also apply to thicknesses of roof insulation> 180 mm. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 84 is given.

Wöllstein Ziegelhüttenstr. 40-42



Verge without ring beam - AW HLz

		Lin		thermal transmittance				
	≥180	Q	0.07	-0.01	-0.02	-0.02	-0.02	
		Х _{ыw} [\\\/(m•K)]	0.09	-0.02	-0.02	-0.02	-0.02	
	5	Хım	0.11	-0.02	-0.02	-0.02	-0.02	
			0.14	-0.02	-0.02	-0.01	-0.01	
d 15 15 160	t							
Schematic diagram (Al	Il dimensions in mm)			Charge	d Heat 2.8 (A	MZ 2012)		

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry and 4108 based on the U-value of the Gefachs for better comparability with Supplement 2 DIN. The calculation results also apply to thicknesses of roof insulation> 180 mm. The thermal insulation between the rafters has a minimum thickness of 180 mm the thermal conductivity of 0.035 W / (m K). The U-value of the roof is <= 0.2 W / (m K). Top of the wall of the outer wall has no additional insulation. Between the coating and the rafters Mauerkrone a 60 mm wide insulation (035) is inserted.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 81 is given.

Verge without ring beam - AW HLz with insulation overlay

Wöllstein Ziegelhüttenstr. 40-42



Linear thermal transmittance Y [W / (m * K)] Thickness d of the outer wall 300 mm 490 mm 365 mm 425 mm 180 0.07 -0.02 -0.02 -0.03 -0.03 λ_{mw}[\///(m•K)] 0.09 -0.03 -0.03 -0.03 -0.04 0.11 -0.03 -0.03 -0.03 -0.04 -0.04 -0.04 0.14 -0.04 -0.04 11 15 20 d 60 Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry and 4108 based on the U-value of the Gefachs for better comparability with Supplement 2 DIN. The calculation results also apply to thicknesses of roof insulation> 180 mm. The thermal insulation between the rafters has a minimum thickness of 180 mm the thermal conductivity of 0.035 W / (mK). The U-value of the roof is <= 0.2 W / (m²K). Top of the wall of the outer wall is provided with a mortar and a balance insulation (035) of

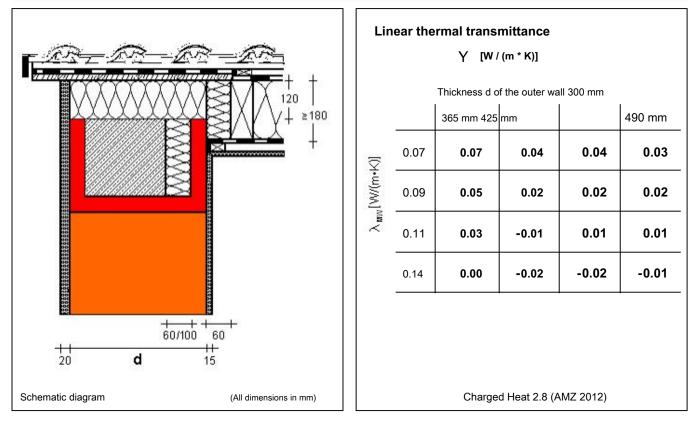
> provided = 60 mm. Between the coating and the rafters Mauerkrone a 60 mm wide insulation (035) is inserted.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 81 is given.



No. 81100



Verge with U-cup, insulation inside - AW HLz

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry and 4108 based on the U-value of the Gefachs for better comparability with Supplement 2 DIN. The calculation results also apply to thicknesses of roof insulation> 180 mm. The thermal insulation between the rafters has a minimum thickness of 180 mm the thermal conductivity of 0.035 W / (mK). The U-value of the roof is <= 0.2 W / (mK). Top of the wall of the outer wall is provided with an insulation (035) of 120 mm. Between the coating and the rafters Mauerkrone a 60 mm wide insulation (035) is inserted. The thickness of the inside inserted in the U-shell insulation is 60 mm in wall thickness 300 mm, with larger wall thicknesses of 100 mm are provided.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 81 is for psi values <= 0.06 W / (m K), where in principle, for higher values in accordance with paragraph 3.5 a) and b) also..



Linear thermal transmittance Y [W / (m * K)] Thickness d of the outer wall 300 mm 20 ≥180 365 mm 425 mm 0.07 0.07 0.07 0.07 λ_{mw}[\/\/(m•K)] 0.09 0.05 0.06 0.06 0.11 0.03 0.04 0.05 0.14 0.00 0.02 0.02 60 20 d 15 Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

Verge of WU-shell, insulation inside - AW HLz

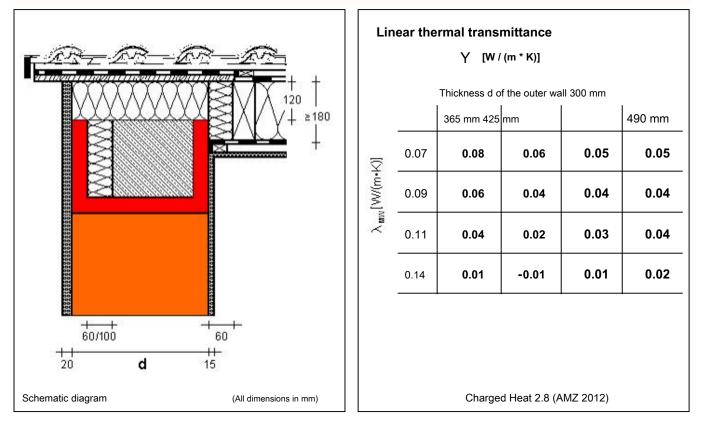
The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry and 4108 based on the U-value of the Gefachs for better comparability with Supplement 2 DIN. The calculation results also apply to thicknesses of roof insulation> 180 mm. The thermal insulation between the rafters has a minimum thickness of 180 mm the thermal conductivity of 0.035 W / (mK). The U-value of the roof is <= 0.2 W / (m K). Top of the wall of the outer wall is provided with an insulation (035) of 120 mm. Between the coating and the rafters Mauerkrone a 60 mm wide insulation (035) is inserted. To avoid condensation in the structure thermal insulation with a mue- value> = must be used 80, for example, extruded polystyrene, or a room-side vapor barrier. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 81 is for psi values <= 0.06 W / (m K), where in principle, for higher values in accordance with paragraph 3.5 a) and b) also..

Verge with U-cup, insulation outside - AW HLz



No. 81150



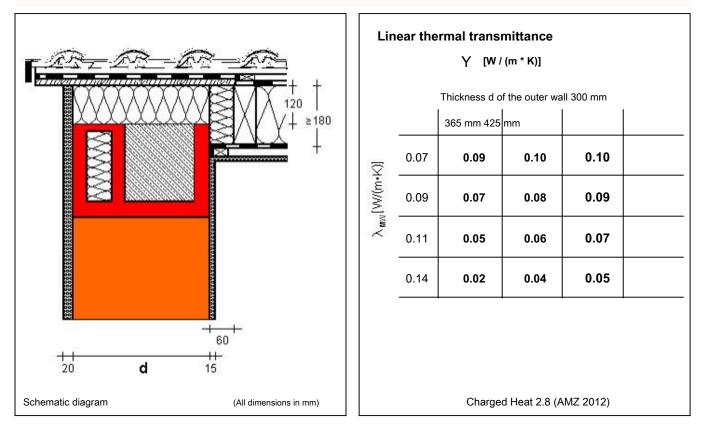
The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry and 4108 based on the U-value of the Gefachs for better comparability with Supplement 2 DIN. The calculation results also apply to thicknesses of roof insulation> 180 mm. The thermal insulation between the rafters has a minimum thickness of 180 mm the thermal conductivity of 0.035 W / (mK). The U-value of the roof is <= 0.2 W / (m²K). Top of the wall of the outer wall is provided with an insulation (035) of 120 mm. Between the coating and the rafters Mauerkrone a 60 mm wide insulation (035) is inserted. The thickness of the outer disposed in the U-shell insulation (035) of the armature ring is 60 mm and wall thickness of 300 mm, with wall thicknesses 300 mm are provided 100 mm.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 81 is for psi values <= 0.06 W / (m K), where in principle, for higher values in accordance with paragraph 3.5 a) and b) also..



No. 81155



Verge of WU-shell, insulation outside - AW HLz

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry and 4108 based on the U-value of the Gefachs for better comparability with Supplement 2 DIN. The calculation results also apply to thicknesses of roof insulation> 180 mm. The thermal insulation between the rafters has a minimum thickness of 180 mm the thermal conductivity of 0.035 W / (mK). The U-value of the roof is <= 0.2 W / (m K). Top of the wall of the outer wall is provided with an insulation (035) of 120 mm. Between the coating and the rafters Mauerkrone a 60 mm wide insulation (035) is inserted. The heat-insulated part of the WU-shell is disposed to the outside.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

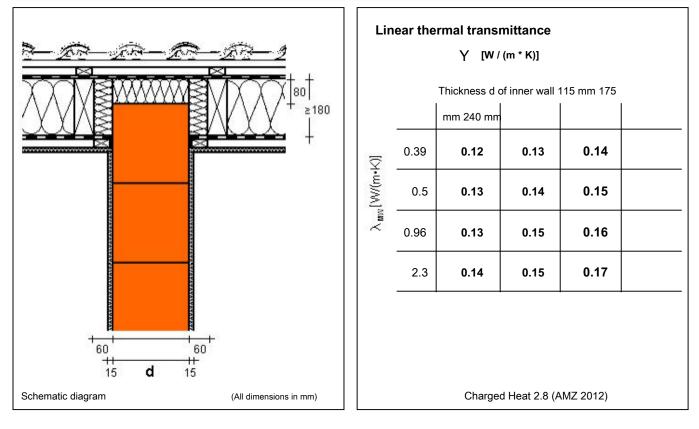
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 81 is for psi values <= 0.06 W / (m K), where in principle, for higher values in accordance with paragraph 3.5 a) and b) also..

Wöllstein Ziegelhüttenstr. 40-42



Inner wall involvement - pitched roof

No. 82000



The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry or a concrete wall or a wall with reinforced concrete ring beam.

The thermal insulation between the rafters has a minimum thickness of 180 mm the thermal conductivity of 0.035 W / (mK). The U-value of the roof is <= 0.2 W / (mK). Above the the including the wall thickness of the thermal insulation (035) is 80 mm. Between the coating and the rafters Mauerkrone a 60 mm wide insulation (035) is inserted. The calculation results are also valid for two-shell house partitions as well as for thickness of the roof insulation> 180 mm.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

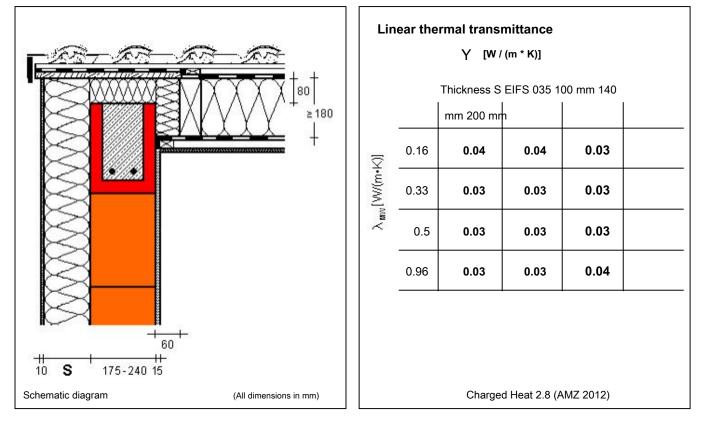
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 93 is given.

Wöllstein Ziegelhüttenstr. 40-42



Verge with ring beam - AW with EIFS

No. 84000



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the EIFS and thermal conductivities of the rear brickwork for the wall thickness 175 -240 mm. For better comparability with supplementary sheet 2 DIN 4108 is the Psi

-Value based on the U-value of the Gefachs. The calculation results also apply to thicknesses of roof insulation> 180 mm.

The thermal insulation between the rafters has a minimum thickness of 180 mm the thermal conductivity of 0.035 W / (mK). The U-value of the roof is <= $0.2 \text{ W} / (\text{m}^2\text{K})$. Top of the wall of the outer wall is provided with an insulation (035) of 80 mm. Between the coating and the rafters Mauerkrone a 60 mm wide insulation (035) is inserted. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

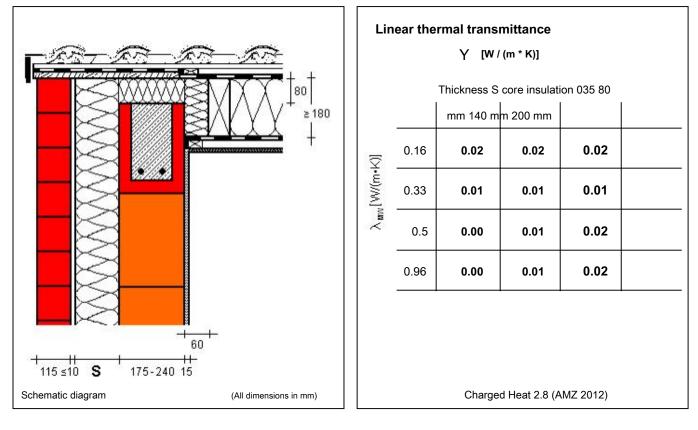
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 82 is given.

Wöllstein Ziegelhüttenstr. 40-42



Verge with ring beam - AW with VMz

No. 85000



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the core insulation and thermal conductivities of the rear brickwork for the wall thicknesses of 175-240 mm. For better comparability with supplementary sheet 2 DIN 4108 of Psi-value is based on the U-value of Gefachs. The calculation results are> 180 mm for thicknesses of roof insulation and thicknesses of the front brickwork> = 90 mm .. The insulation between the rafters has a minimum thickness of 180 mm of thermal conductivity 0.035 W / (mK) on. The U-value of the roof is <= 0.2 W / (m K). Top of the wall of the outer wall is provided with an insulation (035) of 80 mm. Between the coating and the rafters Mauerkrone a 60 mm wide insulation (035) is inserted. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 82 is given.

Wöllstein Ziegelhüttenstr. 40-42



Roof windows - Top Termination

No. 86000

	40	Lin	ear thermal transmittance Y [W / (m * K)] Thickness S roof insulation 035 180 mm 200 mm 220 mm 220 mm					
						0.00	240 mm	
		Ē	0	0.25	0.26	0.26	0.27	
		Dicke a [mm]	30	0.15	0.14	0.14	0.14	
		Dick	60	0.10	0.10	0.10	0.10	
Schematic diagram	(All dimensions in mm)		Charged Heat 2.8 (AMZ 2012)					

The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the roof insulation and a is the Zargendämmung. In the insulation thickness 240 mm a rafter insulation of 200 mm and an under-rafter insulation of 40 mm thickness is used. The position of the exchange woods between the rafters affect the thermal bridge loss coefficient is not taken into account when constructing. For better comparability with supplementary sheet 2 DIN 4108 of Psi-value is based on the U-value of Gefachs.

The thermal conductivity of the roof window Uw is $1.4 \text{ W} / (\text{m}^2\text{K})$, the thermal insulation between the rafters and the window lining is calculated with a thermal conductivity of 0.035 W / (mK).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

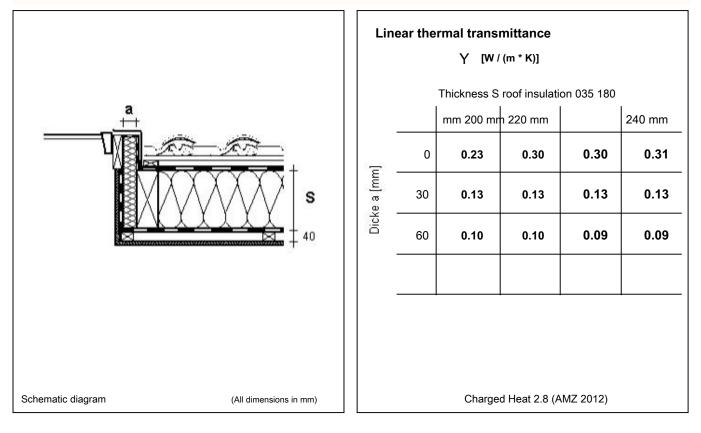
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 image 90 is added 0.16 W / (m K) for psi values <=.

Wöllstein Ziegelhüttenstr. 40-42



Roof windows - soffit

No. 86100



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the roof insulation and a is the Zargendämmung. In the insulation thickness 240 mm a rafter insulation of 200 mm and an under-rafter insulation of 40 mm thickness is used. The position of the exchange woods between the rafters affect the thermal bridge loss coefficient is not taken into account when constructing. For better comparability with supplementary sheet 2 DIN 4108 of Psi-value is based on the U-value of Gefachs.

The thermal conductivity of the roof window Uw is $1.4 \text{ W} / (\text{m}^2\text{K})$, the thermal insulation between the rafters and the window lining is calculated with a thermal conductivity of 0.035 W / (mK).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

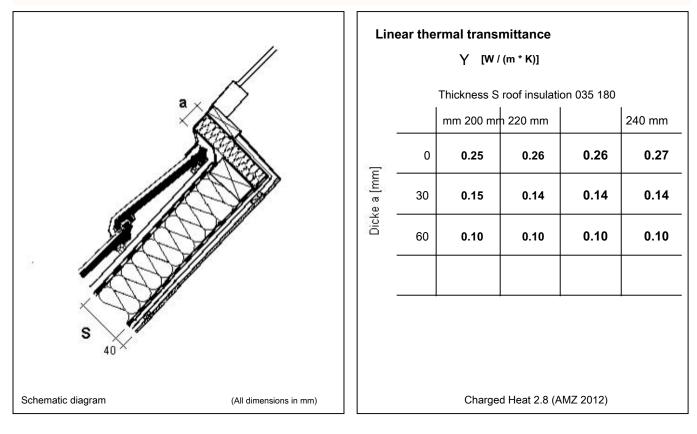
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 image 91 is added 0.11 W / (m K) for psi values <=.

Wöllstein Ziegelhüttenstr. 40-42



Roof windows - bottom connection

No. 86200



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the roof insulation and a is the Zargendämmung. In the insulation thickness 240 mm a rafter insulation of 200 mm and an under-rafter insulation of 40 mm thickness is used. The position of the exchange woods between the rafters affect the thermal bridge loss coefficient is not taken into account when constructing. For better comparability with supplementary sheet 2 DIN 4108 of Psi-value is based on the U-value of Gefachs.

The thermal conductivity of the roof window Uw is $1.4 \text{ W} / (\text{m}^2\text{K})$, the thermal insulation between the rafters and the window lining is calculated with a thermal conductivity of 0.035 W / (mK).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 image 90 is added 0.16 W / (m K) for psi values <=.

Wöllstein Ziegelhüttenstr. 40-42

Gaube side - sloping roof

а

25

Schematic diagram

mm 200 mm 220 mm 100 -0.05 -0.04 -0.04 Dicke a [mm] 140 -0.03 -0.03 -0.03 180 -0.02 -0.02 -0.02 s 40 IXI.

Linear thermal transmittance

Y [W / (m * K)]

Thickness S roof insulation 035 180

Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the roof insulation and the insulation of the dormer a side wall. In the insulation thickness 240 mm a rafter insulation of 200 mm and an under-rafter insulation of 40 mm thickness is used. The position of the exchange woods between the rafters affect the thermal bridge loss coefficient is not taken into account when constructing. For better comparability with supplementary sheet 2 DIN 4108 of Psi-value is based on the U-value of Gefachs.

(All dimensions in mm)

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 92 is given.



No. 87000

240 mm

-0.04

-0.03

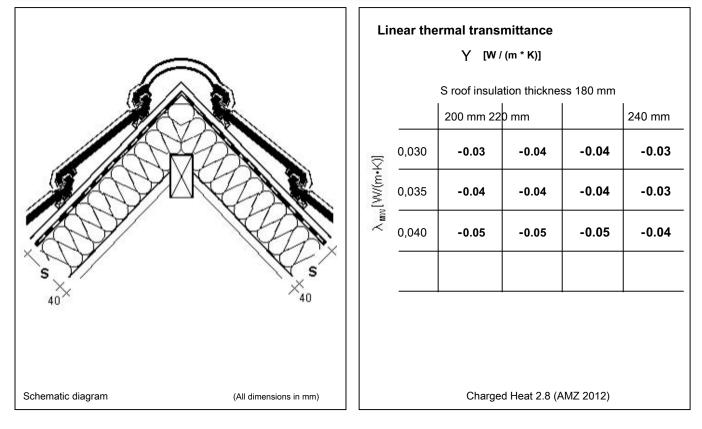
-0.02

Wöllstein Ziegelhüttenstr. 40-42



Ridge with ridge board - pitched roof

No. **88000**



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S and thermal conductivities of the roof insulation. In the insulation thickness 240 mm a rafter insulation of 200 mm and an under-rafter insulation of 40 mm thickness is used. The psi values are based on the U-value of Gefachs.

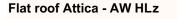
The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

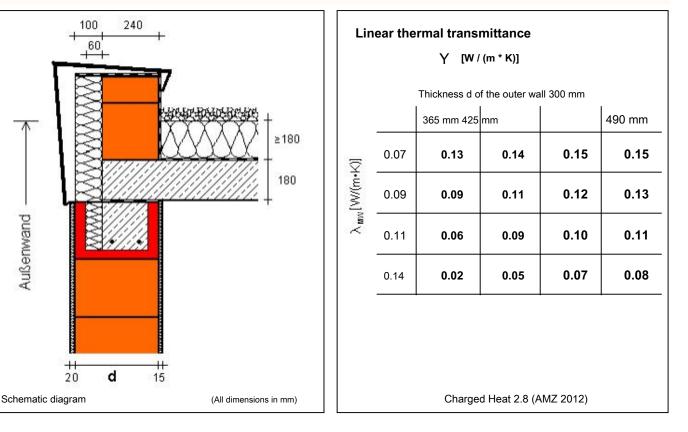
There is no reference detail in accordance with DIN 4108 Supplement 2: 2006-03 before. An equivalence proof need not be performed.

Wöllstein Ziegelhüttenstr. 40-42



No. 89000





The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry. The thermal insulation on the roof deck has a minimum thickness of 180 mm the thermal conductivity of 0.035 W / (mK). The U-value of the roof deck is <= 0.2 W / (m K). The attic of thermally insulating walls of the thermal conductivity 0.14 W / (mK) is in the range of 100 mm Deckenauflagers the outside with thermal insulation of the thermal conductivity (035) and is provided in the U-cup ring armature with 60 mm thickness.

The calculation results also apply to thicknesses of roof insulation> 160 mm. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

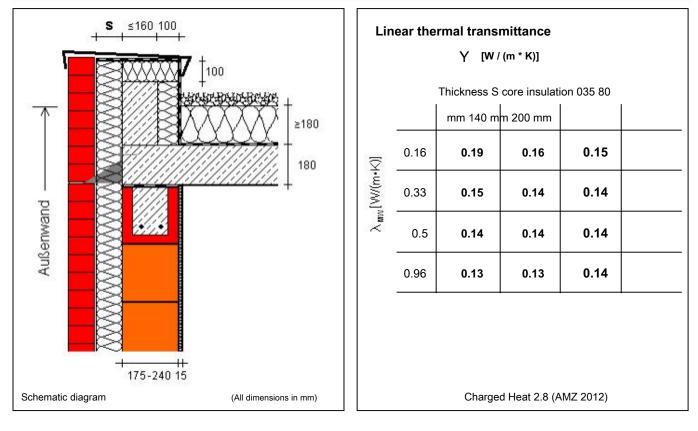
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 87 is given.

Wöllstein Ziegelhüttenstr. 40-42



Flat roof Attica - AW with VMz

No. 89100



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the core insulation and thermal conductivities of the rear brickwork for the wall thicknesses of 175-240 mm. The psi values apply to thicknesses of the front brickwork> = 90 mm.

The thermal insulation on the roof slab has a thickness of 180 mm. The U-value of the roof deck is $\leq 0.2 \text{ W} / (\text{m K})$. The attic is made of steel concrete with a 100 mm external heat insulation (035). The support brackets for anchorage of the front brickwork at the ceiling head are included in the PSI value as punctual thermal bridges with a supplement of 0.1 W / (m K). The calculation results also apply to thicknesses of roof insulation> 180 mm.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

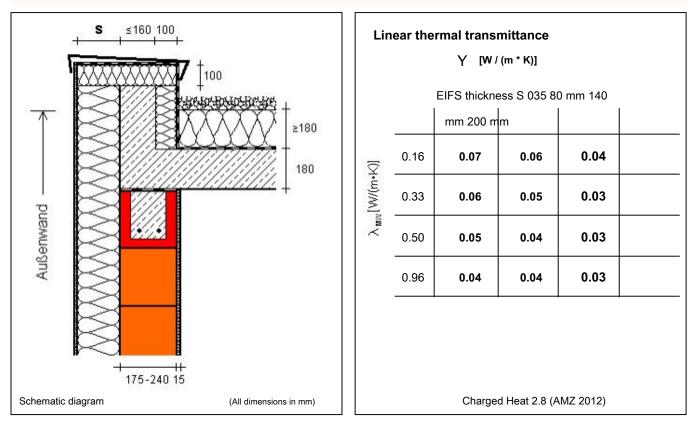
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 89 is for psi values ≤ 0.14 , where W / (m K), for overlying values in masonry of the thermal conductivity of ≤ 0.16 W / (m K) according to para. 3.5 a) and b) also.

Wöllstein Ziegelhüttenstr. 40-42



No. 89105





The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the thermal insulation composite system and thermal conductivities of the rear brickwork for the wall thicknesses of 175-240 mm.

The thermal insulation on the roof slab has a thickness of 180 mm. The U-value of the roof deck is $\leq 0.2 \text{ W} / (\text{m K})$. The attic is made of steel concrete with a 100 mm external heat insulation (035). The calculation results also apply to thicknesses of roof insulation> 180 mm.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

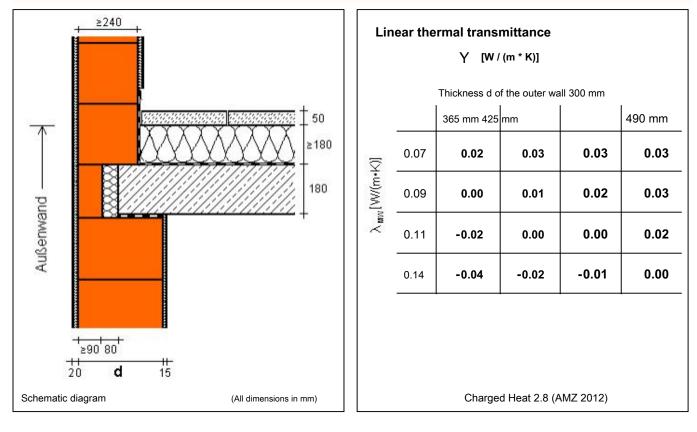
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 88 is given.



Wöllstein Ziegelhüttenstr. 40-42

Flat roof with parapet HLz - AW HLz

No. 89200



The calculation of length-based heat transfer coefficient is carried out in dependence of different wall thicknesses d and thermal conductivities of the brickwork.

The thermal insulation of the roof slab is 180 mm thick with a thermal conductivity of 0.035 W / (mK

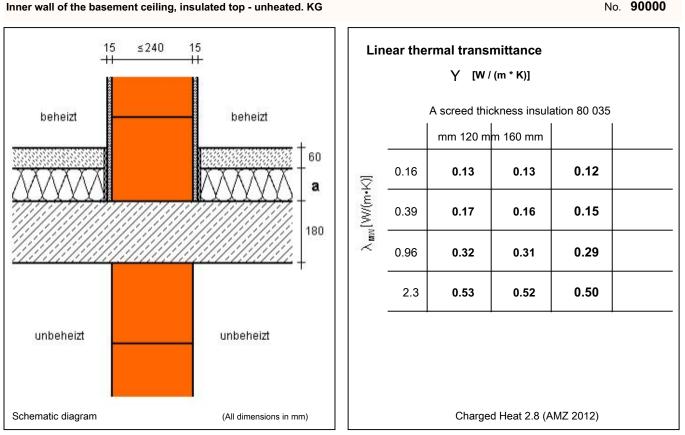
), The U-value of the roof deck is <= 0.2 W / (m K). The parapet / attic of thermally insulating walls of the thermal conductivity 0.14 W / (mK) is carried out without additional heat insulation and partially (not on corners of buildings directly) back-anchored on reinforced concrete pillars and upper side provided with a ring armature, not shown here. The insulation (035) behind the walling has a thickness of 80 mm. The thermal conductivity of Abmauerziegels and height compensation tile has a negligible impact on the Psi - values. The calculation results also apply to thicknesses of roof insulation> 180 mm.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 87 is given.

UW POROTO

Wöllstein Ziegelhüttenstr. 40-42



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses a of the screed insulation with the thermal conductivity of 0.035 W / (mK) and different thermal conductivities of the inner masonry in the heated area. The thickness and thermal conductivity of the inner wall in the basement of the psi values without influence. The basement has a temperature - on correction factor FG 0.6. At higher temperatures the cellar with FG - values values <0.6 are slightly more favorable result Psi. The system limit the basement ceiling below the floor insulation on the soffit.

The calculation results are for wall thicknesses in the heated area from 115 to 240 mm. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 94 is given.

Wöllstein Ziegelhüttenstr. 40-42

**JUWÖ POROTON

15 ≤240 15 Linear thermal transmittance + Y [W / (m * K)] A screed thickness insulation 80 035 beheizt beheizt mm 120 mm 160 mm 60 0.13 0.12 0.16 0.13 [\//\(m•K)] а 0.39 0.13 0.13 0.12 180 0.96 0.14 0.14 0.13 unbeheizt unbeheizt Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses a of the screed insulation with the thermal conductivity of 0.035 W / (mK) and different thermal conductivities of the inner masonry in the heated area. In masonry thermal conductivities of about 0.3 W / (mK), the lowermost layer of brick is designed as Kimmschicht with a vertical thermal conductivity of <= 0.3 W / (m K). The thickness and thermal conductivity of the inner wall in the basement of the psi values without influence.

The basement has a temperature - on correction factor FG 0.6. At higher temperatures the cellar with FG - values - values <0.6 are slightly more favorable result Psi. The system limit the basement ceiling below the floor insulation on the soffit.

The calculation results are for wall thicknesses in the heated area from 115 to 240 mm. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

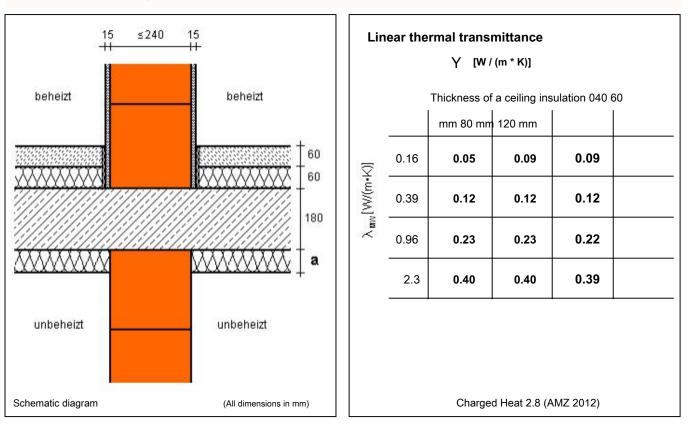
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 94 is given.

Interior wall on KG-ceiling Kimmschicht, insulated top - unheated. KG

Interior wall on KG-ceiling, insulated top and bottom - unheated. KG

**JUWÖ POROTON

Wöllstein Ziegelhüttenstr. 40-42



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses of a ceiling insulation with the thermal conductivity of 0.035 W / (mK

) and different thermal conductivities of the inner masonry in the heated and unheated area. With different thermal conductivities of the inner walls of the higher shall prevail. The insulation of the basement ceiling is constructed in two layers. The basement has a temperature - on correction factor FG 0.6. At higher temperatures the cellar with FG - values - values <0.6 are slightly more favorable result Psi. The system limit the basement ceiling is on the bare floor! The calculation results are for wall thicknesses in the heated area from 115 to 240 mm. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 95 is given.

Interior wall on KG-ceiling, insulated top and bottom - unheated. KG -

Interior wall on KG-ceiling Kimmschicht, printed top and bottom.

**JUWÖ POROTON

Wöllstein Ziegelhüttenstr. 40-42

15 ≤240 15 Linear thermal transmittance Y [W / (m * K)] beheizt beheizt Thickness of a ceiling insulation 040 60 mm 80 mm 120 mm 60 0.05 0.09 0.09 0.16 [[V//(m•K)] 60 0.39 0.11 0.11 0.11 180 0.96 0.16 0.17 0.18 a unbeheizt unbeheizt Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses of a ceiling insulation with the thermal conductivity of 0.035 W / (m K

) and different thermal conductivities of the inner masonry in the heated area. In masonry thermal conductivities of about 0.3 W / (m K), the lowermost layer of brick is designed as Kimmschicht with a vertical thermal conductivity of <= 0.3 W / (m K). A deviation of the thermal conductivity of the basement wall is the unmaßbgeblich. The psi values apply to basement interior walls of reinforced concrete.

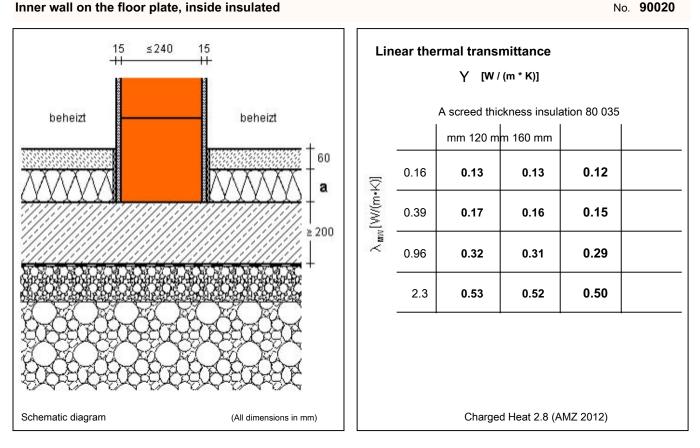
The insulation of the basement ceiling is constructed in two layers The basement has a temperature - correction factor of 0.6 FG on. At higher temperatures the cellar with FG - values - values <0.6 are slightly more favorable result Psi. The system limit the basement ceiling is on the bare floor! The calculation results are for wall thicknesses in the heated area from 115 to 240 mm. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 95 is given.

Wöllstein Ziegelhüttenstr. 40-42



No. 90020



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses a of the screed insulation with the thermal conductivity of 0.035 W / (mK) and different thermal conductivities of the inner masonry.

The earth has a temperature correction factor FG 0.6. The system boundary of the base plate below the floor

insulation on the concrete floor. The calculation results are for wall thicknesses from 115 to 240 mm.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

There is no reference detail in accordance with DIN 4108 Supplement 2: 2006-03 before. An equivalence proof need not be performed. The equivalence analog image 94 according to DIN 4108 Supplement 2 is given.

Inner wall on the floor plate Kimmschicht internally insulated,

Wöllstein Ziegelhüttenstr. 40-42



No. 90021

15 ≤240 15 Linear thermal transmittance + Y [W / (m * K)] A screed thickness insulation 80 035 beheizt beheizt mm 120 mm 160 mm 60 0.13 0.12 0.16 0.13 λ_{mw}[\///(m•K)] а 0.39 0.13 0.13 0.12 200 녿 0.96 0.14 0.14 0.13 Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses a of the screed insulation with the thermal conductivity of 0.035 W / (mK) and different thermal conductivities of the inner masonry. at

Masonry thermal conductivities of about 0.3 W / (m K), the lowermost layer of brick is designed as Kimmschicht with a vertical thermal conductivity of <= 0.3 W / (m K).

The earth has a temperature correction factor FG 0.6. The system boundary of the base plate below the floor

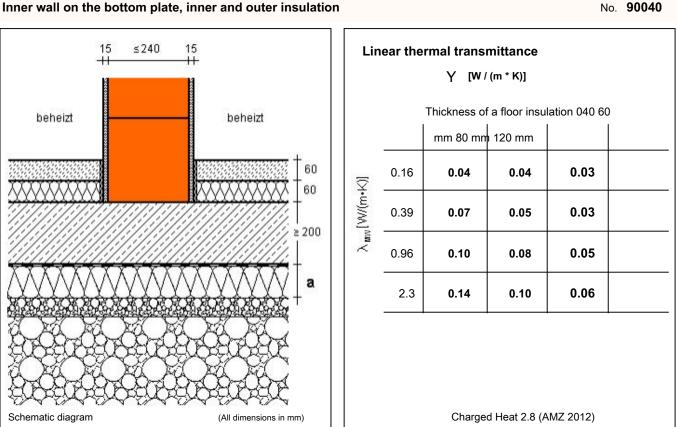
insulation on the concrete floor. The calculation results are for wall thicknesses from 115 to 240 mm.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

There is no reference detail in accordance with DIN 4108 Supplement 2: 2006-03 before. An equivalence proof need not be performed. The equivalence analog image 94 according to DIN 4108 Supplement 2 is given.

POROT

Wöllstein Ziegelhüttenstr. 40-42



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses a of the under-side floor panel insulation with the thermal conductivity of 0.04 W / (mK) and different thermal conductivities of the inner masonry. The earth has a temperature correction factor FG 0.6. The system boundary of the base plate below the floor insulation on the concrete floor. The calculation results are for wall thicknesses from 115 to 240 mm.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

There is no reference detail in accordance with DIN 4108 Supplement 2: 2006-03 before. An equivalence proof need not be performed.



No. 90050

Wöllstein Ziegelhüttenstr. 40-42

Inner wall on parking garage ceiling with StB-wall

≤240 15 15 Linear thermal transmittance Y [W / (m * K)] Collar height h 0 mm 500 mm beheizt beheizt 1000 ... 0.40 0.24 0.19 0.16 60 λ_{mw}[\/\/(m•K)] 60 0.39 0.21 0.44 0.26 180 0.96 0.58 0.34 0.28 ≥100 2.3 0.74 0.42 0.35 Außenluft Außenluft h Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the inner masonry in the heated area and heights of at least 100 mm thick reinforced concrete wall Dämmschürze of h in the garage with outside air temperature.

The U-value of the ceiling is <= 0.23 W / (m²K). The insulation of the basement garage ceiling is carried out in two layers. At least 100 mm thick insulation below the ceiling and on the wall of the collar has a thermal conductivity of 0.04 W / (mK). In the garage outside air temperatures are accepted. The system limit the garage ceiling below the ceiling insulation arranged externally!

The calculation results are for wall thicknesses on the ground floor of <= 240 mm.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

Inner wall on parking garage ceiling with Kimmschicht

**JUWÖ POROTON

Wöllstein Ziegelhüttenstr. 40-42

15 ≤240 15 Linear thermal transmittance Y [W / (m * K)] Collar height h 0 mm 500 mm beheizt beheizt 1000 ... 0.40 0.24 0.19 0.16 60 [(X+w)///] 60 0.39 0.20 0.41 0.24 180 < 0.96 0.44 0.26 0.21 ≥100 Außenluft Außenluft h Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the inner masonry in the heated area and the heights h of at least 100 thick Dämmschürze the reinforced concrete wall in the underground with outside air temperature. In masonry thermal conductivities of about 0.3 W / (mK), the lowermost layer of brick is 0.3 W / (mK) designed as Kimmschicht with a vertical thermal conductivity <=. The U-value of the ceiling is <= 0.23 W / (m²K). The insulation of the basement garage ceiling is carried out in two layers. At least 100 mm thick insulation below the ceiling and on the wall of the collar has a thermal conductivity of 0.04 W / (mK). In the garage outside air temperatures are accepted. The system limit the garage ceiling below the ceiling insulation arranged externally!

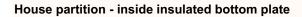
The calculation results are for wall thicknesses on the ground floor of <= 240 mm.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

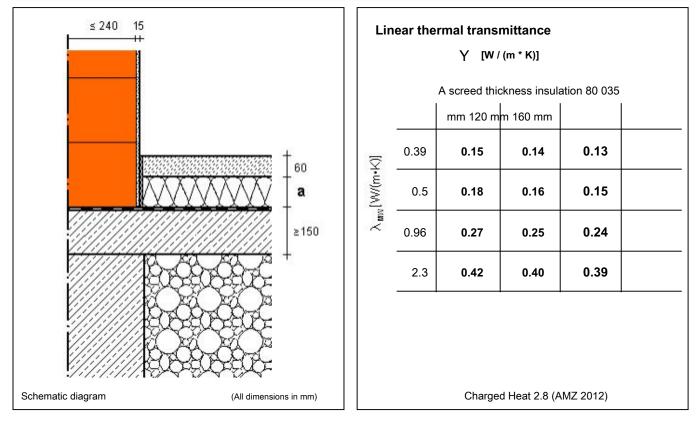
There is no reference detail in accordance with DIN 4108 Supplement 2: 2006-03 before. An equivalence proof need not be performed.



Wöllstein Ziegelhüttenstr. 40-42



No. 90100



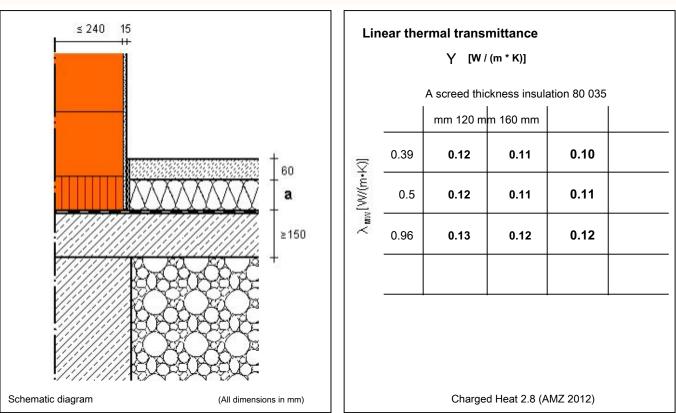
The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the two wall plates of the 2--wall brickwork the front partition wall and a thickness of the screed insulation.

The floor insulation is assumed to have a thermal conductivity of 0.035 W / (mK). The earth has a temperature - on correction factor FG 0.6. At higher ground temperatures with FG - values - values < 0.6 are slightly more favorable result Psi. The calculation results are for wall thicknesses from 115 to 240 mm per building. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

House partition with Kimmsch. - base plate inside insulated



Wöllstein Ziegelhüttenstr. 40-42



The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the two wall plates of the 2--wall brickwork the front partition wall and a thickness of the screed insulation. In masonry thermal conductivities of about 0.3 W / (mK), the lowermost layer of brick is 0.3 W / (mK) designed as Kimmschicht with a vertical thermal conductivity <=.

The floor insulation is assumed to have a thermal conductivity of 0.035 W / (mK). The earth has a temperature - on correction factor FG 0.6. At higher ground temperatures with FG - values - values < 0.6 are slightly more favorable result Psi. The calculation results are for wall thicknesses from 115 to 240 mm per building. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

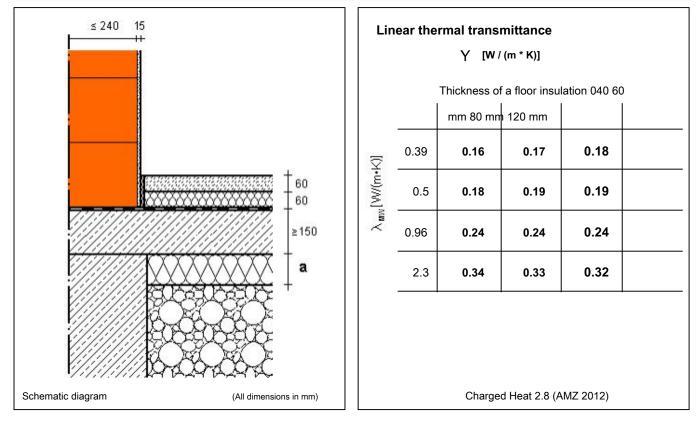
There is no reference detail in accordance with DIN 4108 Supplement 2: 2006-03 before. An equivalence proof need not be performed.



Wöllstein Ziegelhüttenstr. 40-42

House partition - base plate internal and external insulation

No. 90110



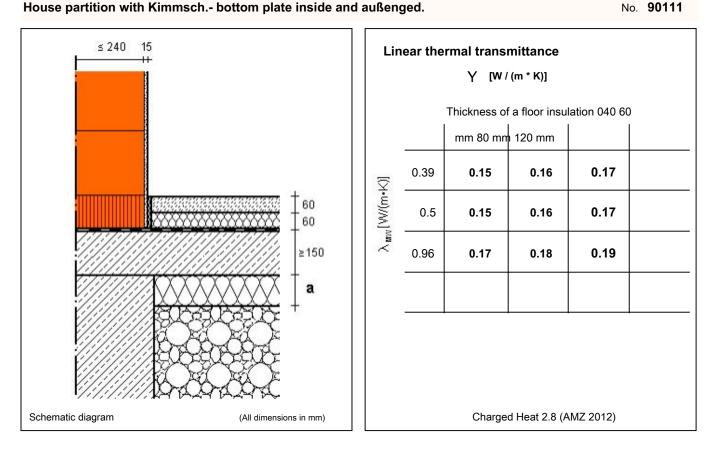
The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the two wall plates of the 2--wall brickwork the front partition wall and a thickness of the outside floor insulation.

The inner and outer insulation is adopted with a thermal conductivity of 0.04 W / (mK). The soil has a temperature - correction factor to FG of 0.6 or corresponding to 8 $^{\circ}$ C. At higher ground temperatures with FG - values - values <0.6 are slightly more favorable result Psi.

The calculation results are for wall thicknesses from 115 to 240 mm per building. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.



Wöllstein Ziegelhüttenstr. 40-42



The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the two wall plates of the 2--wall brickwork the front partition wall and a thickness of the outside floor insulation. at

Masonry thermal conductivities of about 0.3 W / (mK), the lowermost layer of brick is 0.3 W / (mK) designed as Kimmschicht with a vertical thermal conductivity <=.

The inner and outer insulation is adopted with a thermal conductivity of 0.04 W / (mK). The soil has a temperature - correction factor to FG of 0.6 or corresponding to 8 $^{\circ}$ C. At higher ground temperatures with FG - values - values <0.6 are slightly more favorable result Psi.

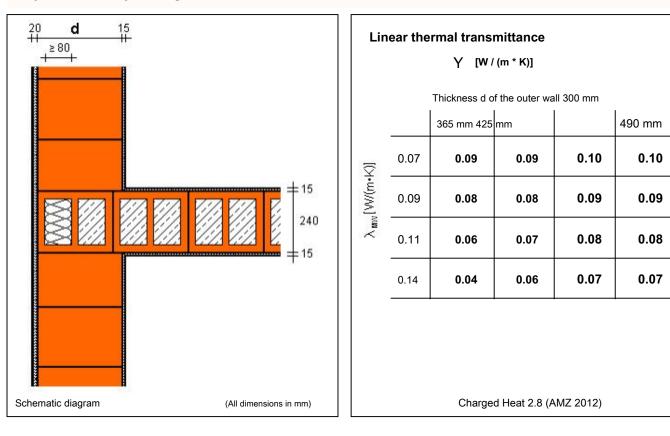
The calculation results are for wall thicknesses from 115 to 240 mm per building. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

Wöllstein Ziegelhüttenstr. 40-42

Party wall to AW, by binding



No. 90200



The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the outer masonry. The 24 cm thick flat partition wall is designed as Füllziegelwand having a basis weight of> 450 kg / m and a thermal conductivity of 0.96 W / (mK). The outside filling chamber is provided with a storey-high thermal insulation R> = 2.0 (m K) / W corresponding to a thickness of> = 80 mm with the thermal conductivity of 0.04 W / (m K).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

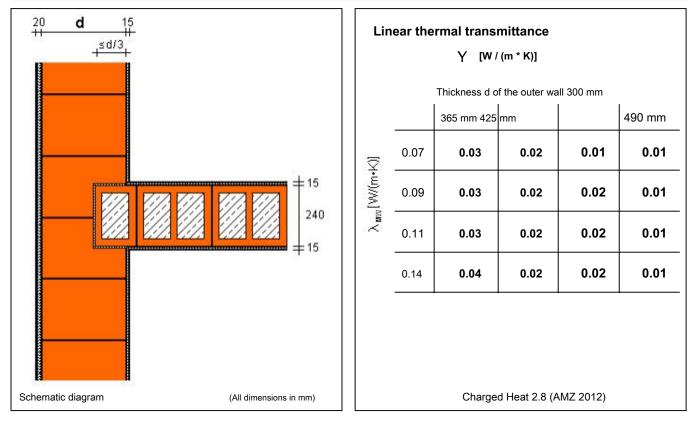
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 can be detected analog image 71 and is 0.06 W / (m K) for psi values <=.



Wöllstein Ziegelhüttenstr. 40-42

Party wall to AW, <= d / 3 einbindend

No. 90210



The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the outer masonry. The 24 cm thick flat partition wall is designed as Füllziegelwand having a basis weight of> 450 kg / m and a thermal conductivity of 0.96 W / (m K) and about d / 3 included from the room side. The values also apply to party walls of reinforced concrete. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 analog image 71 is given.



0.06

0.06

0.05

0.04

Wöllstein Ziegelhüttenstr. 40-42

No. 90220

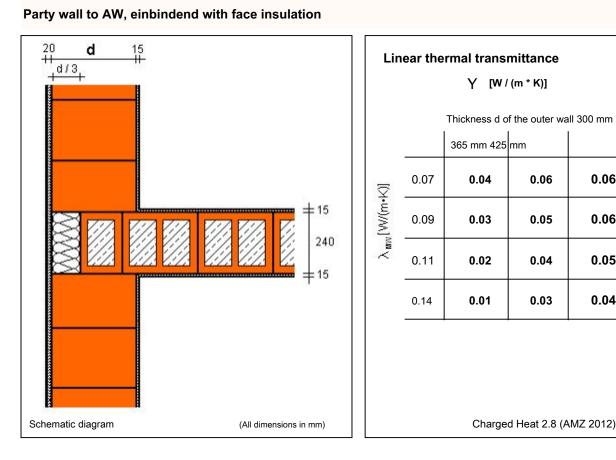
490 mm

0.07

0.06

0.06

0.05



The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the outer masonry. The 24 cm thick flat partition wall is designed as Füllziegelwand having a basis weight of> 450 kg / m² nd a thermal conductivity of 0.96 W / (m K). The partition wall end is provided with a thermal insulation storey height of thickness d / 3 with the thermal conductivity of 0.035 W / (m K). For concrete release the walls psi values the details are 70,000 to be used. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 can be detected analog image 71 and is 0.06 W / (m K) for psi values <=.

Außenluft



Wöllstein Ziegelhüttenstr. 40-42

d

15

|| 15

240

Schematic diagram

15

Party wall snapping off to AW, with involvement

20

H

Linear thermal transmittance Y [W / (m * K)] Thickness d of the outer wall 300 mm 490 mm 365 mm 425 mm 0.07 0.06 0.05 0.04 0.04 Х _{ШW} [VV/(m•K)] 0.09 0.07 0.06 0.05 0.05 0.11 0.08 0.07 0.06 0.06 0.08 0.14 0.10 0.08 0.07

Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the outer masonry. The 24 cm thick flat partition wall is designed as Füllziegelwand having a basis weight of> 450 kg / m and a thermal conductivity of 0.96 W / (m K) and integrated with full wall thickness d in the jutting-outer wall.

: 20

d

= 15

(All dimensions in mm)

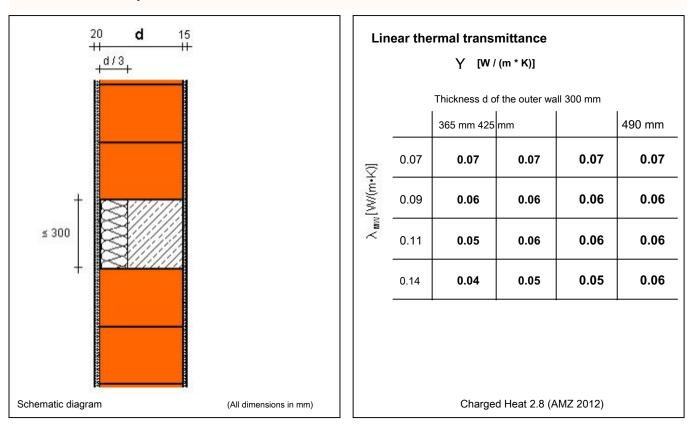
The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

Exterior wall with thermally insulated reinforced concrete column

Wöllstein Ziegelhüttenstr. 40-42



No. 90300



The calculation of length-based heat transfer coefficient is carried out in dependence of different wall thicknesses d and thermal conductivities of the brickwork.

The thickness of the thermal insulation against the 300 mm wide steel concrete column is d / 3 ie 100-160 mm, the thermal conductivity of 0.035 W / (m K).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 Figure 71 is for psi values <= 0.06 W / (m K), where in principle, for higher values in accordance with paragraph 3.5 a) and b) also..

**JUWÖ POROTON

No. 90310

Wöllstein Ziegelhüttenstr. 40-42

Schematic diagram

$\begin{array}{c} 20 & d & 15 \\ + & d/3 \\ + & for a relation of the outer wall 300 mm \\ \hline & & 365 mm 425 mm \\ - & 365 mm 425 mm \\ \hline & & 300 \\ \hline & & 0.07 & 0.04 & 0.04 & 0.04 \\ \hline & & 0.09 & 0.02 & 0.03 & 0.03 \\ \hline & & 0.09 & 0.02 & 0.03 & 0.03 \\ \hline & & 0.11 & 0.00 & 0.01 & 0.02 \\ \hline & & 0.11 & 0.00 & 0.01 & 0.02 \\ \hline & & & & & & & \\ \end{array}$

Outer wall with reinforced concrete column - over curb flush

The calculation of length-based heat transfer coefficient is carried out in dependence of different wall thicknesses d and thermal conductivities of the brickwork.

(All dimensions in mm)

The thickness of the thermal insulation against the 300 mm wide steel concrete column is d / 3 ie 100-160 mm, the thermal conductivity of 0.035 W / (m K) .The thermal insulation extends beyond the reinforced concrete column on both sides by 100 mm.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 is given analog image 71st



Υ [W / (m * K)]							
		Thickness d o	f the outer wa	all 300 mm			
		365 mm 425	mm		490 mm		
Ŷ	0.07	0.04	0.04	0.04	0.05		
Х _{ШW} [\\\/(m•K)]	0.09	0.02	0.03	0.03	0.03		
Хaw	0.11	0.00	0.01	0.02	0.02		
	0.14	-0.03	-0.02	-0.01	0.00		
Charged Heat 2.8 (AMZ 2012)							

Outer wall with reinforced concrete column - about insulates the outside - monolithically

Wöllstein Ziegelhüttenstr. 40-42

The calculation of length-based heat transfer coefficient is carried out in dependence of different wall thicknesses d and thermal conductivities of the brickwork.

The thickness of the thermal insulation against the 300 mm wide steel concrete column is d / 3 ie 100-160 mm, the thermal conductivity of 0.035 W / (m K). The thermal insulation extends beyond the reinforced concrete column on both sides by 100 mm. The thermal insulation is lisenenartig arranged on the outer walls and projects beyond the reinforced concrete column on both sides by 100 mm.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 can be detected analog image 71 and is 0.06 W / (m K) for psi values <=.

20 d ++ + ¹⁰⁰ +	15 	Lin	ear the	ermal trans Y [w/	mittance (m * K)]		
				ıll 300 mm ı	1 300 mm		
				365 mm 425	mm		490 mm
	+ ≤ 300	Ŕ	0.07	0.09	0.11	0.12	0.13
		λ _{aw} [VV/(m•K)]	0.09	0.07	0.10	0.12	0.13
500			0.11	0.06	0.09	0.11	0.13
			0.14	0.04	0.08	0.10	0.12
55 46 55 46 55 46 55 46 55 46 55 46 55 46 55 46 55 46 55 46 55 46 55 46 55 46 55 46 55 46 55 46 55 46 55 46 55							
Schematic diagram	(All dimensions in mm)			Charge	d Heat 2.8 (A	MZ 2012)	

Outer wall with reinforced concrete column - on the outside curb







External wall corner HLz masonry - outside

20

Schematic diagram

d

	Lin	Linear thermal transmittance Y [W / (m * K)] Thickness d of the outer wall 300 mm					
			365 mm 425	mm		490 mm	
	Q	0.07	-0.11	-0.11	-0.11	-0.10	
MINANJANJAWAINAWAWJANANANJANJAWA	λ _{∎w} [\\\(m+K)]	0.09	-0.13	-0.13	-0.13	-0.13	
	A num	0.11	-0.16	-0.16	-0.16	-0.16	
		0.14	-0.20	-0.20	-0.20	-0.20	
(All dimensions in mm)			Charge	d Heat 2.8 (A	AMZ 2012)		

The calculation of length-based heat transfer coefficient is carried out in dependence of different wall thicknesses d and thermal conductivities of the brickwork. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

Wöllstein Ziegelhüttenstr. 40-42



Linear thermal transmittance Y [W / (m * K)] 365 mm 425 mm 0.07 -0.06 -0.06 A_{MW}[\\\\(m•K)] 0.09 -0.08 -0.08 0.11 -0.10 -0.10 0.14 -0.12 -0.12 15 d Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

External wall corner HLz masonry ground - outside

Thickness d of the outer wall 300 mm 490 mm -0.06 -0.06 -0.08 -0.08 -0.10 -0.10 -0.12 -0.12

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the masonry in the ground. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

There is no reference detail in accordance with DIN 4108 Supplement 2: 2006-03 before. An equivalence proof need not be performed.

**JUWÖ POROTON

Wöllstein Ziegelhüttenstr. 40-42

External wall corner HLz masonry - interior

2	Liı	Linear thermal transmittance Y [W / (m * K)] Thickness d of the outer wall 300 mm					
	07000070			365 mm 425			490 mm
	2000 X 0 X 0 X 0 X 0 X 0 X 0 X 0 X 0 X 0	Q	0.07	0.04	0.04	0.04	0.04
		_{MW} [\\\/(m+K)]	0.09	0.05	0.05	0.05	0.05
ARAANAA MARAANA MARAANA MARAANAANA		λıım	0.11	0.07	0.07	0.07	0.07
			0.14	0.08	0.08	0.08	0.08
конозонскон (ононокононоконо), соколо но с	жожолжожожожолого кожолжожожожолю						
Schematic diagram	(All dimensions in mm)			Charge	d Heat 2.8 (A	MZ 2012)	

The calculation of length-based heat transfer coefficient is carried out in dependence of different wall thicknesses d and thermal conductivities of the brickwork. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

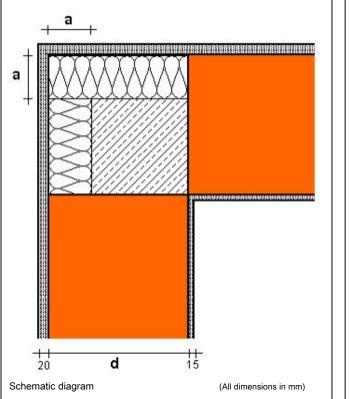
There is no reference detail in accordance with DIN 4108 Supplement 2: 2006-03 before. An equivalence proof need not be performed.

External wall corner HLz masonry with reinforced concrete column

Wöllstein Ziegelhüttenstr. 40-42



No. 91200



		Y [W / Thickness d o 365 mm 425	f the outer wa	ıll 300 mm	490 mm
_	100	-0.06	-0.06	-0.05	-0.05
Dicke a [mm]	120	-0.09	-0.09	-0.09	-0.08
Dick	140	-0.12	-0.12	-0.12	-0.12
	160	-0.17	-0.17	-0.17	-0.17

The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and a

thickness of the additional insulation (035) of the support. At lower insulation thicknesses than 100 mm, the allowable

surface temperature factor fRsi> is = below 0.7!

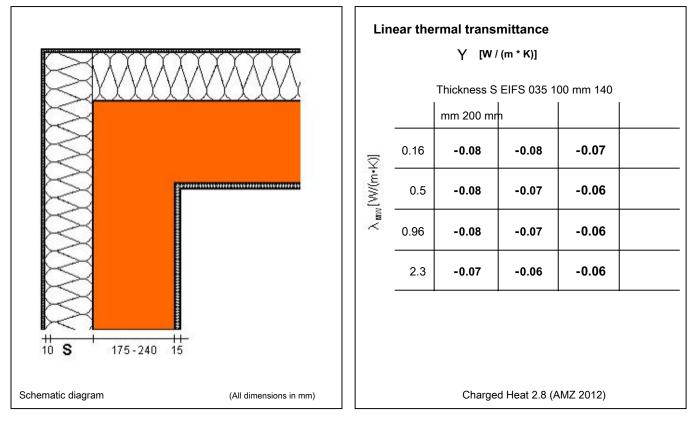
From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

Wöllstein Ziegelhüttenstr. 40-42



Outer wall area with EIFS - external

No. 94000



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S and thermal conductivities of the rear brickwork and a reinforced concrete panel for the wall thicknesses of 175-240 mm. In case of other larger wall thicknesses of the brick backing slightly more favorable values are obtained Psi.

From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

Wöllstein Ziegelhüttenstr. 40-42



Linear thermal transmittance Y [W / (m * K)] Thickness S perimeter insulation 040 100 mm 140 mm 180 mm -0.05 -0.05 -0.04 0.16 A_{MW}[\\\\(m•K)] 0.5 -0.05 -0.04 -0.04 **************** 0.96 -0.05 -0.04 -0.04 2.3 -0.04 -0.04 -0.04 s 175-240 15 Schematic diagram (All dimensions in mm) Charged Heat 2.8 (AMZ 2012)

The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the perimeter insulation (040) and thermal conductivities of the rear brickwork and a reinforced concrete panel for the wall thicknesses of 175-240 mm. In case of other larger wall thicknesses of the brick backing yield slightly more favorable Psi values.

From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

There is no reference detail in accordance with DIN 4108 Supplement 2: 2006-03 before. An equivalence proof need not be performed.

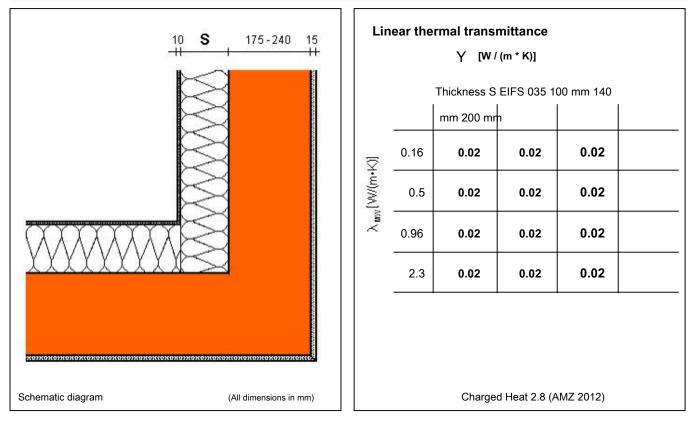
Outer wall area with a perimeter insulation - external

**JUWÖ POROTON

Wöllstein Ziegelhüttenstr. 40-42

External wall corner with EIFS - inside

No. 94100



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S and thermal conductivities of the rear brickwork or for a reinforced concrete panel for the wall thickness of 175-240 mm. At higher wall thicknesses of the brick backing slightly more favorable values are obtained Psi.

From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The results may also be acquired for with soil touched exterior walls. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

Wöllstein Ziegelhüttenstr. 40-42



		Lin	ear the	rmal trans	mittance (m * K)]		
SW				Thickness S mm 140 m		on 035 80	
		۲¢	0.16	-0.14	-0.11	-0.09	
		λ _{MW} [\\\\(m+K)]	0.33	-0.15	-0.11	-0.09	
	311-11-11-11-11-11-11-11-11-11-11-11-11-	Хıım	0.5	-0.15	-0.11	-0.09	
			0.96	-0.15	-0.11	-0.09	
115 10 S 175-2	240 15						
Schematic diagram	(All dimensions in mm)			Charge	d Heat 2.8 (A	MZ 2012)	

External wall corner with core insulation and VMz - outside

The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the core insulation and thermal conductivities of the rear brickwork for the wall thickness of 175-240 mm. With larger wall thicknesses of the brick backing slightly more favorable values are obtained Psi. The psi values apply to thicknesses of the front brickwork> = 90 mm.

From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

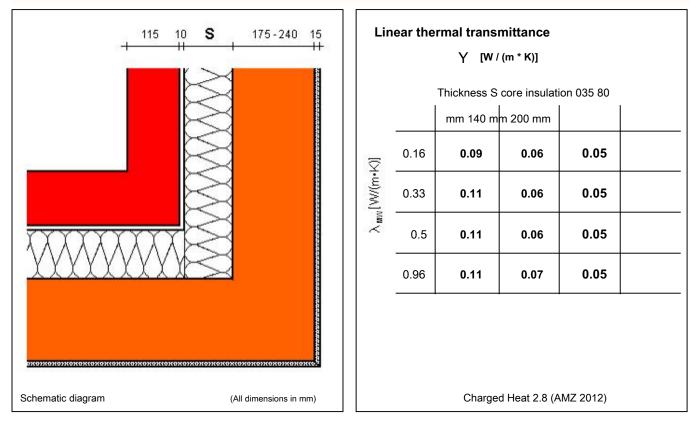
There is no reference detail in accordance with DIN 4108 Supplement 2: 2006-03 before. An equivalence proof need not be performed.

External wall corner with core insulation and VMz - inside

Wöllstein Ziegelhüttenstr. 40-42



No. 95100



The calculation of the length-based heat transfer coefficient takes place in dependence of different insulation thicknesses S of the core insulation and thermal conductivities of the rear brickwork for the wall thickness of 175-240 mm. At higher wall thicknesses of the brick backing slightly more favorable values are obtained Psi. The psi values apply to thicknesses of the front brickwork> = 90 mm.

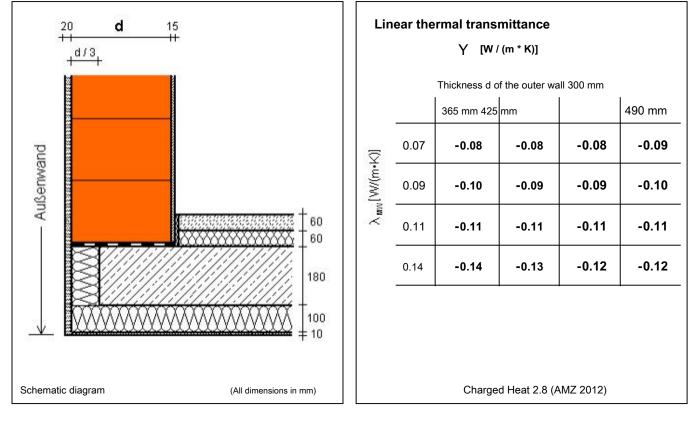
From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.





AW HLz - ceiling air floor / bay

No. 97000



The calculation of length-based heat transfer coefficient is carried out in dependence of different wall thicknesses d and thermal conductivities of the brickwork. The reinforced concrete slab is frontally with d / 3 that is 100 to 160 mm, run at the bottom with 100 mm insulation of the thermal conductivity of 0.035 W / (m K). is the U-value of the blanket

0.21 W / (m K).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

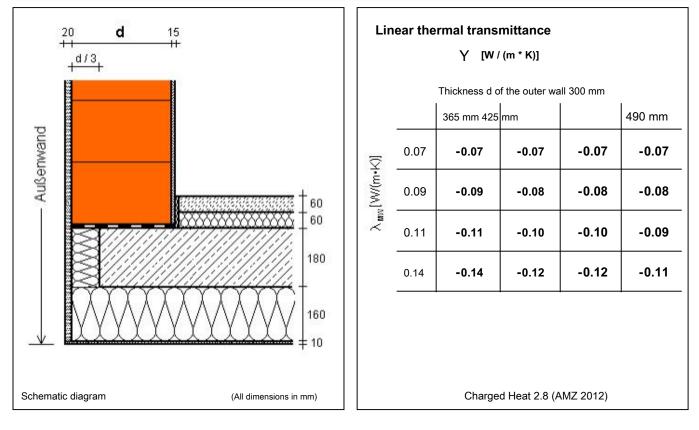
The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 analog image can be detected 12, and is given.

Wöllstein Ziegelhüttenstr. 40-42



AW HLz - ceiling air floor / bay

No. 97005



The calculation of length-based heat transfer coefficient is carried out in dependence of different wall thicknesses d and thermal conductivities of the brickwork. The reinforced concrete slab is frontally with d / 3 that is 100 to 160 mm, run at the bottom with 160 mm insulation of the thermal conductivity of 0.035 W / (m K). is the U-value of the blanket

0.16 W / (m K).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

The equivalence in accordance with DIN 4108 Supplement 2: 2006-03 analog image can be detected 12, and is given.



No. 97100

Wöllstein Ziegelhüttenstr. 40-42

AW HLz - ceiling penthouse level / loggia

20 -11	d 15	Lin	ear the	ermal trans Y [w /	mittance (m * K)]		
201110				Thickness d o	f the outer wa	ll 300 mm	
pu				365 mm 425	mm		490 mm
Außenluft	beheizt	Ā	0.07	0.06	0.06	0.07	0.07
- Auf		\	0.09	0.07	0.07	0.08	0.08
		λuv	0.11	0.08	0.08	0.09	0.09
120	2004000000000000		0.14	0.09	0.10	0.10	0.11
180	beheizt						
! Schematic diagram	! (All dimensions in mm)			Charge	d Heat 2.8 (A	MZ 2012)	

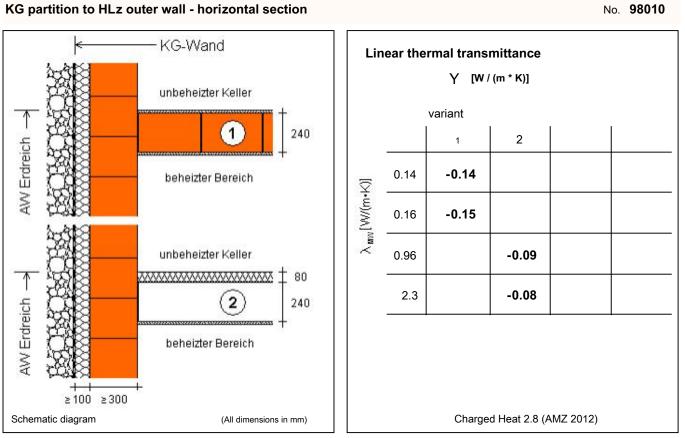
The calculation of the length-based heat transfer coefficient takes place in dependence of different wall thicknesses d and thermal conductivities of the outer masonry. The thermal insulation of the flat roof has been assumed with a thickness of 120 mm. The length-based heat transfer coefficients apply to thermal conductivities of the roof insulation from 0.025 to 0.035 W / (m K).

The intermediate floor can be but formed in the region of the outer wall with a ceiling joist or the same with a supporting inner wall.

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.



Wöllstein Ziegelhüttenstr. 40-42



The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the partition to the unheated basement for two variants with and without the additional insulation 80 mm 240 mm thick partition wall for storage.

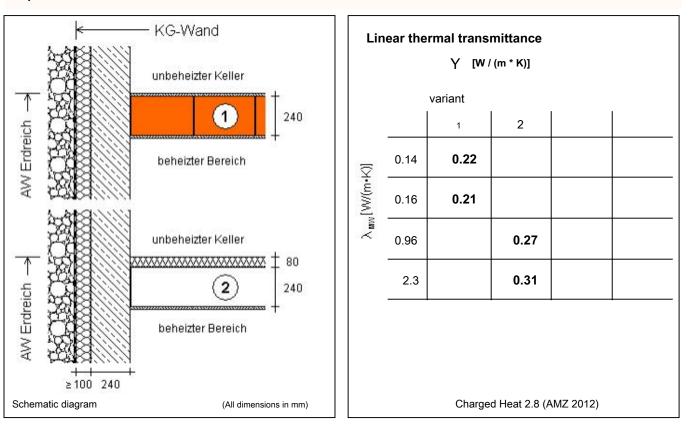
The unheated cellar has a temperature correction factor FG 0.6. A 100 mm different thickness of the perimeter insulation 040 has no significant effect on the result. The thermal conductivity of the external basement masonry is <= 0.24 (mK).

The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.



No. 98020

Wöllstein Ziegelhüttenstr. 40-42



The calculation of the length-based heat transfer coefficient takes place in dependence of different thermal conductivities of the partition to the unheated basement for two variants with and without the additional insulation 80 mm 240 mm thick partition wall for storage.

The unheated cellar has a temperature correction factor FG 0.6. A 100 mm different thickness of the perimeter insulation 040 has no significant effect on the result. The temperature factor fRsi at the site with the lowest surface temperature is> = 0.7. From these assumptions slightly different boundary conditions can be disregarded in determining the psi values. The table values may be interpolated linearly. The graphical representation of the detail is to be understood as a schematic diagram and adjust for the particular application.

Notes	





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