

Input Data-Sheet

Short report | Based on ISO 10077-2 | Performed by: Passive House Institute Dr. Wolfgang Feist, Author: Dr.-Ing. Benjamin Krick

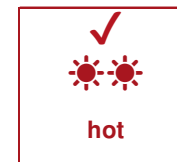
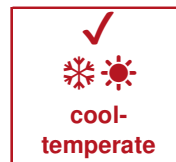
On behalf of: **Moralt AG, Hausham, GERMANY**
 Project/Product: **FERRO PASSIV Akustik SSK2**

Description	Door leaf / Glazing		Uf value [W/(m²K)]				Frame Width [m]				Glazing Edge Ψ-value [W/(m²K)]				Temperature factor (min) $f_{Rsi=0,25}$ [-]	Overall U-value [W/(m²K)]
	U _d -value [W/(m²K)]	U _g -value [W/(m²K)]	Lock s.	Hinge s.	Sill	Head	Lock s.	Hinge s.	Sill	Head	Lock s.	Hinge s.	Sill	Head		
FERRO PASSIV Akustik SSK2	0,41		1,14	1,38	1,96	1,38	0,199	0,114	0,080	0,114	0,002	0,004	0,005	0,004	0,47	0,74

Drawings and material data were provided by the manufacturer. The sole responsibility for the provided information lies with the manufacturer.
 The temperature factor for the cool-temperate climate zone is not achieved.

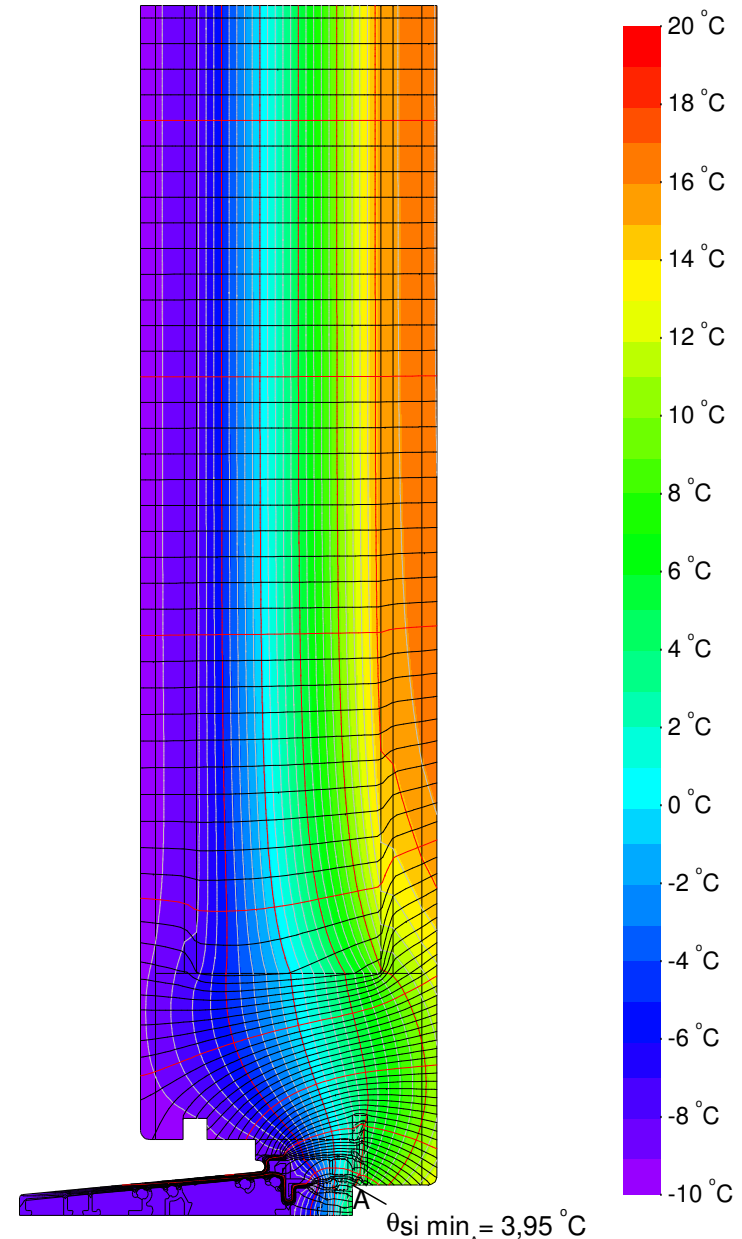
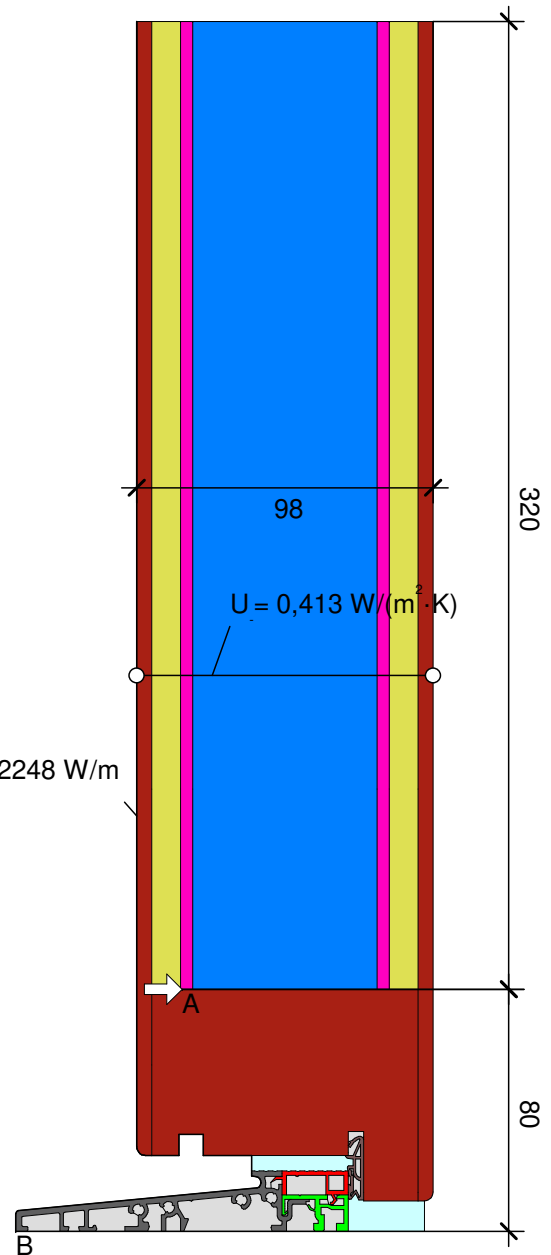
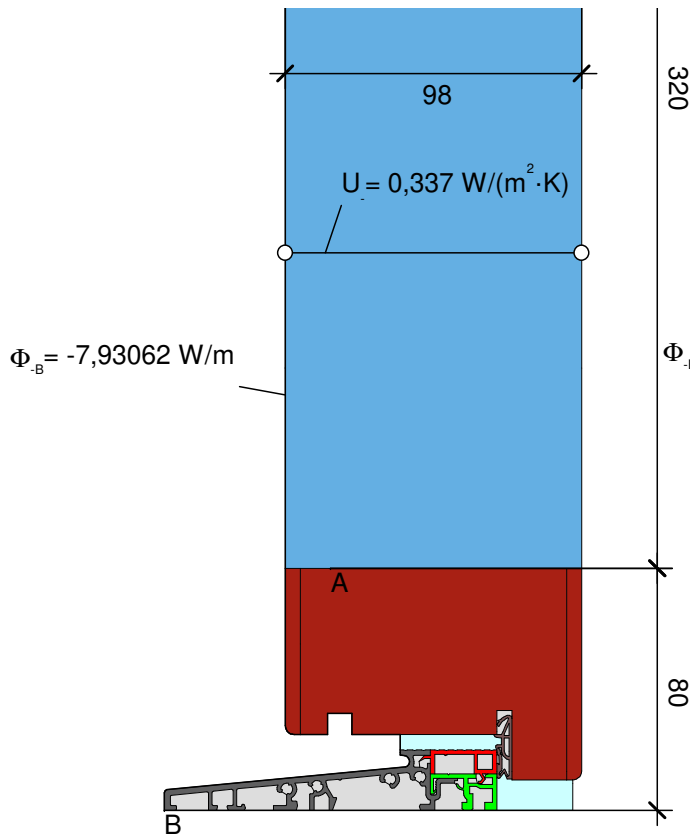
comfort criterion for cool-temperate climate zone achieved

Suitable for climate zone



Material	λ [W/(m·K)]	ϵ
Aluminum Aluminium 10456	160,000	0,900
EPDM	0,250	0,900
Hardwood Hartholz 0.18 700 kg/m ³ 10456	0,180	0,900
PU foam PU-Schaum 030	0,030	
Polyamide 25% Glassfiber	0,300	0,900
Polyvinylchloride (PVC)	0,170	0,900
Sound insulation Schalleinlage	0,500	
Unvent. cavity unbel. Hohlr. **		
Wooden-based material Holzwerkstoff 0.13	0,130	
slightly vent. cav. leicht bel. Hohlr. **		
wooden-based material Holzwerkstoff 0.18	0,180	0,900

** EN ISO 10077-2:2017, 6.4.3

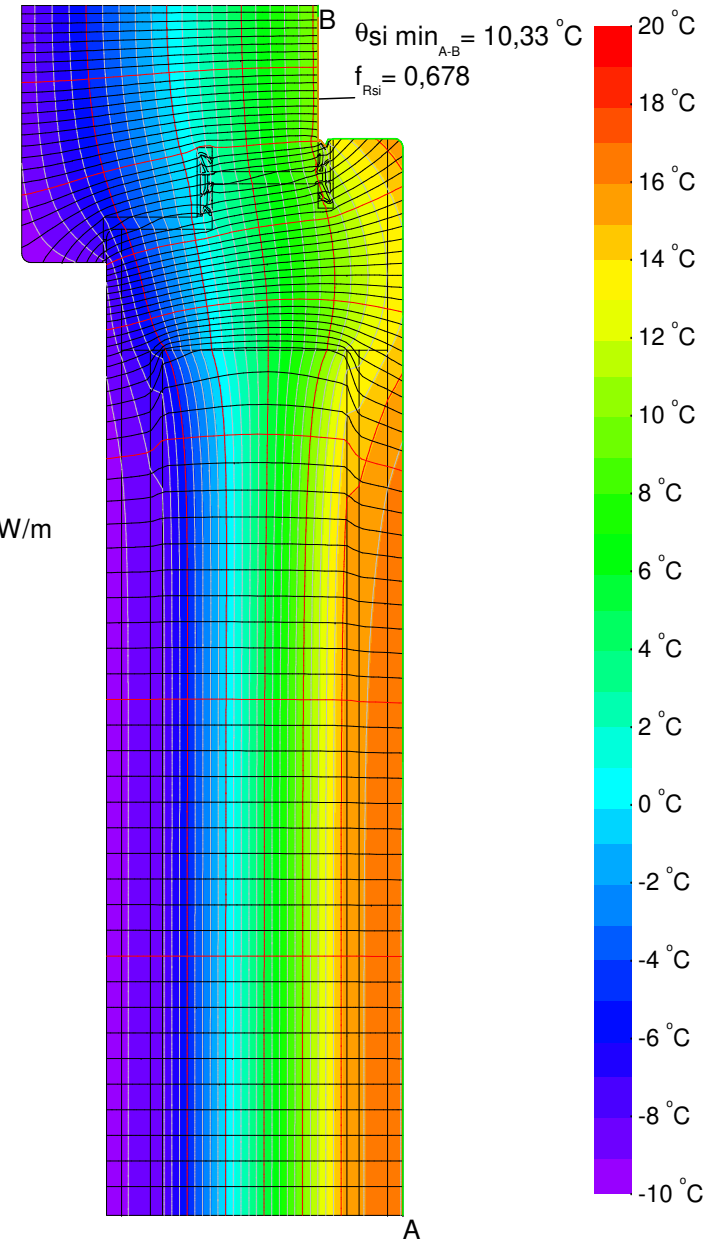
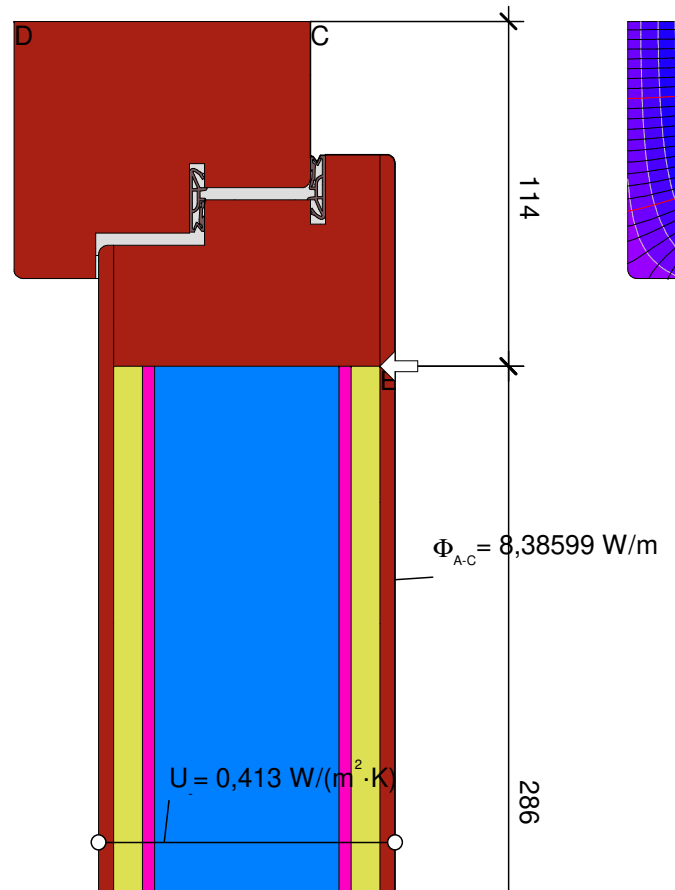
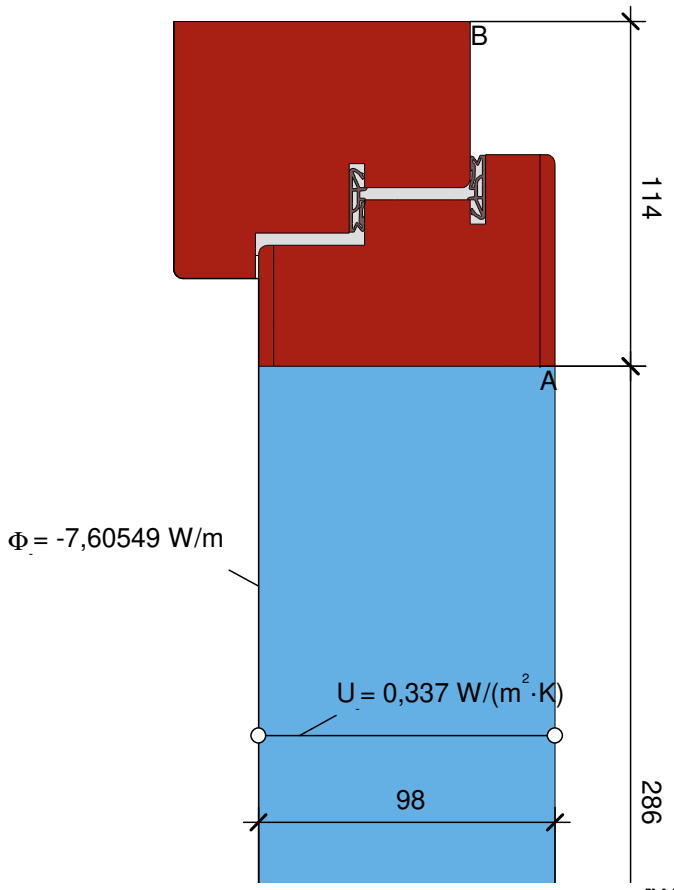


$$U_{fA,B} = \frac{\Phi}{\Delta T} - \frac{U_p \cdot b_p}{b_f} = \frac{7,931}{30,000} - \frac{0,337 \cdot 0,320}{0,080} = 1,958 \text{ W/(m}^2 \cdot \text{K)}$$

$$\psi_A = \frac{\Phi}{\Delta T} - U_g \cdot b_g - U_f \cdot b_f = \frac{8,822}{30,000} - 0,413 \cdot 0,320 - 1,958 \cdot 0,080 = 0,005 \text{ W/(m} \cdot \text{K)}$$

$\theta_{si \text{ min}_A} = 3,95 \text{ }^\circ\text{C}$
 $f_{Rsi} = 0,465$

th - THRESHOLD | SCHWELLE



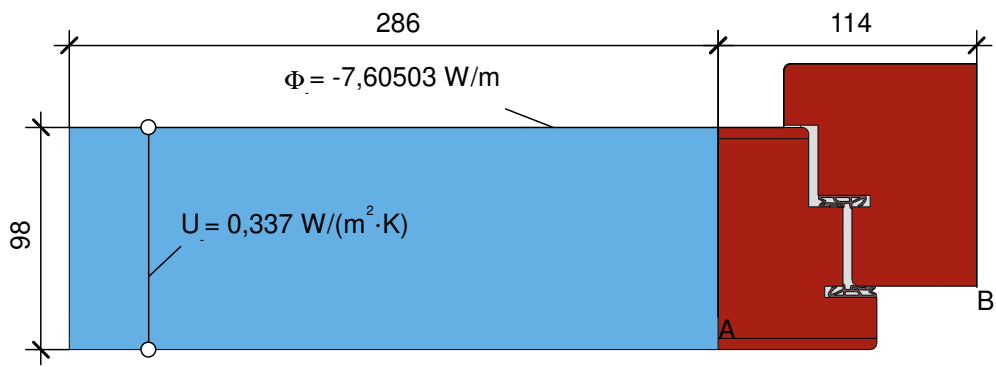
Material	λ [W/(m·K)]	ϵ
EPDM	0,250	0,900
Hardwood Hartholz 0.18 700 kg/m3 10456	0,180	0,900
PU foam PU-Schaum 030	0,030	
Softwood, OSB Weichholz, OSB 10456	0,130	0,900
Sound insulation Schalleinlage	0,500	
Unvent. cavity unbel. Hohlr. **		
Wooden-based material Holzwerkstoff 0.13	0,130	
slightly vent. cav. leicht bel. Hohlr. **		
wooden-based material Holzwerkstoff 0.18	0,180	0,900

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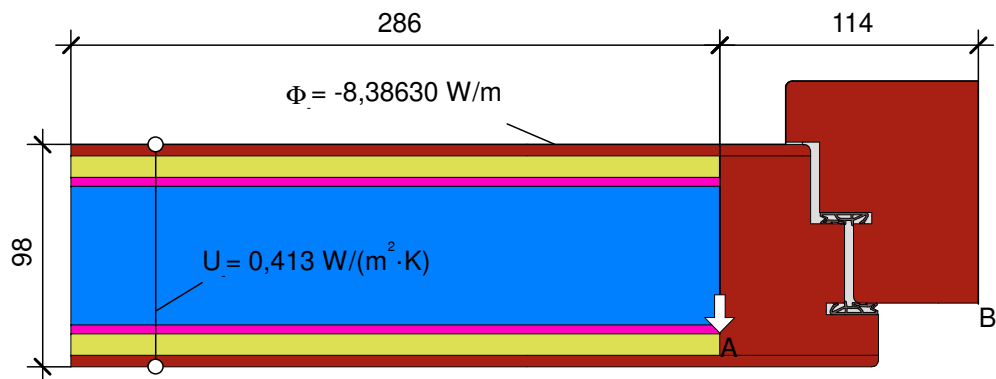
$$U_{f,A-B} = \frac{\Phi}{\Delta T} - \frac{U_p \cdot b_p}{b_f} = \frac{7,605}{30,000} - \frac{0,337 \cdot 0,286}{0,114} = 1,379 \text{ W/(m}^2 \cdot \text{K)}$$

$$\Psi_{A-E-C,*} = \frac{\Phi}{\Delta T} - U_1 \cdot b_1 - U_2 \cdot b_2 = \frac{8,386}{30,000} - 0,413 \cdot 0,286 - 1,379 \cdot 0,114 = 0,004 \text{ W/(m} \cdot \text{K)}$$

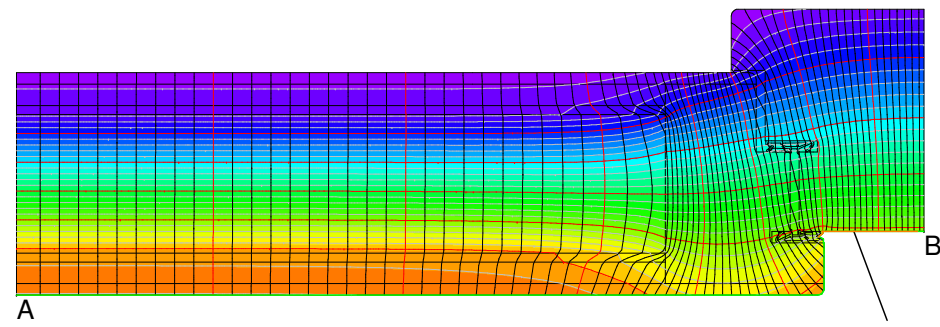
to - TOP | OBEN



$$U_{fA,B} = \frac{\frac{\Phi}{\Delta T} - U_p \cdot b_p}{b_f} = \frac{\frac{7,605}{30,000} - 0,337 \cdot 0,286}{0,114} = 1,379 \text{ W/(m}^2 \cdot \text{K)}$$



$$\psi_A = \frac{\Phi}{\Delta T} - U_g \cdot b_g - U_f \cdot b_f = \frac{8,386}{30,000} - 0,413 \cdot 0,286 - 1,379 \cdot 0,114 = 0,004 \text{ W/(m} \cdot \text{K)}$$



$\theta_{si \min}_{A-B} = 10,33 \text{ }^\circ\text{C}$
 $f_{Rsi} = 0,678$

si HINGE SIDE | BANDSEITE

PHPP Input Data-Sheet

Manufacturer: Moralt AG Product: FERRO PASSIV Akustik SSK2 Spacer: Thermix TX.N Secondary seal: Polysulfid

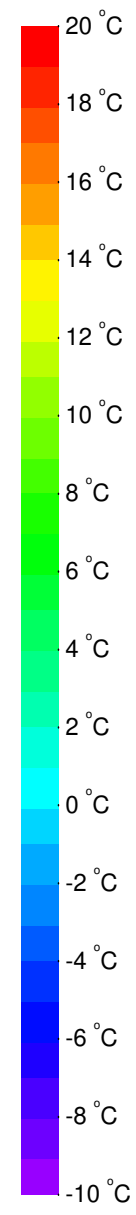


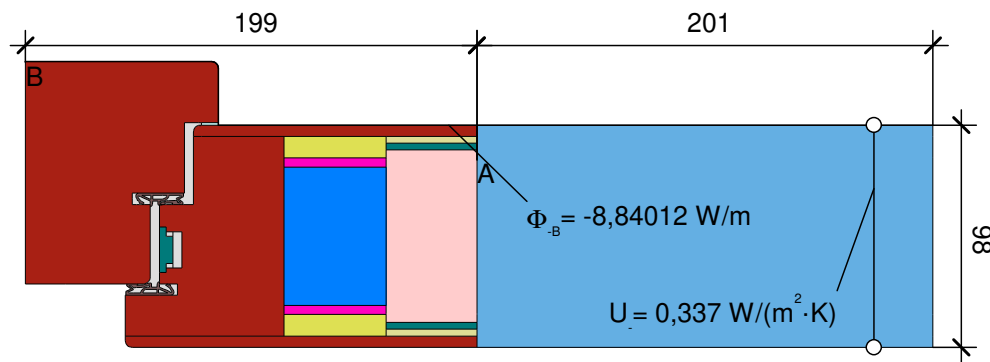
Material	λ [W/(m·K)]	ϵ
EPDM	0,250	0,900
Hardwood Hartholz 0.18 700 kg/m3 10456	0,180	0,900
PU foam PU-Schaum 030	0,030	
Softwood, OSB Weichholz, OSB 10456	0,130	0,900
Sound insulation Schalleinlage	0,500	
Unvent. cavity unbel. Hohlr. **		
Wooden-based material Holzwerkstoff 0.13	0,130	
slightly vent. cav. leicht bel. Hohlr. **		
wooden-based material Holzwerkstoff 0.18	0,180	0,900

** EN ISO 10077-2:2017, 6.4.3

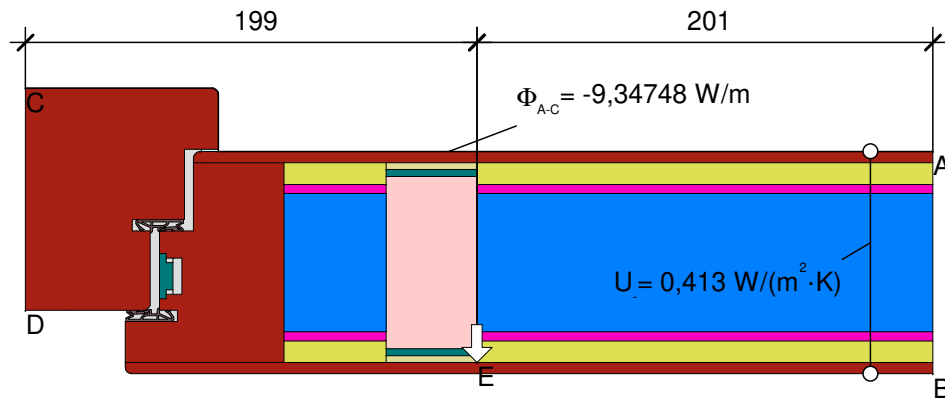
Randbedingung	q [W/m ²]	θ [°C]	R [(m ² ·K)/W]	ϵ
Adiabatic Adiat	0,000			
Exterior Außen		-10,000	0,040	
Interior, frame, normal		20,000	0,130	
Interior, frame, reduced		20,000	0,200	
e 0,9 Cavity Hohlraum				0,900

Randbedingung	q [W/m ²]	θ [°C]	R [(m ² ·K)/W]	ϵ
Adiabatic Adiat	0,000			
Exterior Außen		-10,000	0,040	
e 0,9 Cavity Hohlraum				0,900
fRsi: Interior Innen		20,000	0,250	

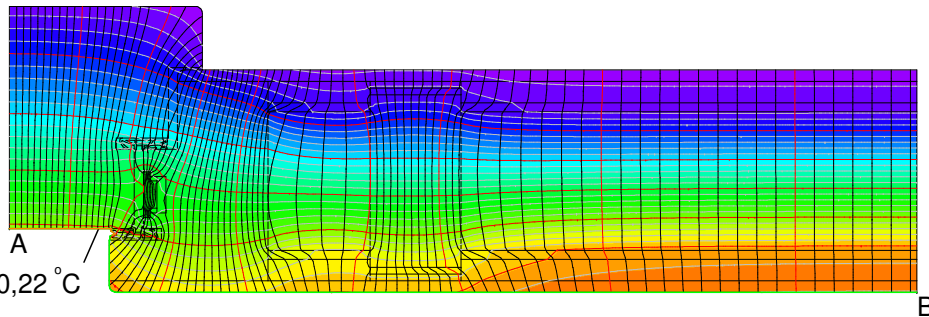




$$U_{fA,B} = \frac{\frac{\Phi}{\Delta T} - U_p \cdot b_p}{b_f} = \frac{\frac{8,840}{30,000} - 0,337 \cdot 0,201}{0,199} = 1,141 \text{ W/(m}^2 \cdot \text{K)}$$



$$\psi_{A-E,C,\cdot} = \frac{\Phi}{\Delta T} - U_1 \cdot b_1 - U_2 \cdot b_2 = \frac{9,347}{30,000} - 0,413 \cdot 0,201 - 1,141 \cdot 0,199 = 0,002 \text{ W/(m} \cdot \text{K)}$$



$\theta_{si \min}_{A-B} = 10,22 \text{ }^\circ\text{C}$

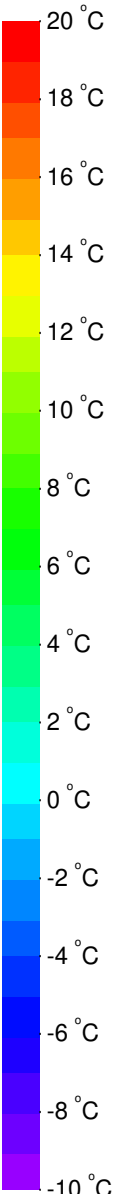
$f_{Rsi} = 0,674$

Material	λ [W/(m·K)]	ϵ
Balsa qsenkrecht 0.11 W/(mK)	0,110	
EPDM	0,250	0,900
Hardwood Hartholz 0.18 700 kg/m ³ 10456	0,180	0,900
PU foam PU-Schaum 030	0,030	
Softwood, OSB Weichholz, OSB 10456	0,130	0,900
Sound insulation Schalleinlage	0,500	
Steel Stahl	50,000	0,900
Unvent. cavity unbel. Hohlr. **		
Wooden-based material Holzwerkstoff 0.13	0,130	
slightly vent. cav. leicht bel. Hohlr. **		
wooden-based material Holzwerkstoff 0.18	0,180	0,900

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Randbedingung	q [W/m ²]	θ [°C]	R [(m ² ·K)/W]	ϵ
Adiabatic Adiat	0,000			
Exterior Außen		-10,000	0,040	
Interior, frame, normal		20,000	0,130	
Interior, frame, reduced		20,000	0,200	
e 0,9 Cavity Hohlraum				0,900

Randbedingung	q [W/m ²]	θ [°C]	R [(m ² ·K)/W]	ϵ
Adiabatic Adiat	0,000			
Exterior Außen		-10,000	0,040	
e 0,9 Cavity Hohlraum				0,900
fRsi: Interior Innen		20,000	0,250	



sh - LOCK SIDE | SCHLOSS SEITE

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Manufacturer: Moralt AG Product: FERRO PASSIV Akustik SSK2 Spacer: Thermix TX.N Secondary seal: Polysulfid

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