

Description Average values for window size h*w 1.23 m * 1.48 m	Glazing U-value [W/(m²K)]	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)]
		Sill	Side	Head	Average	Sill	Side	Head	Average	Sill	Side	Head	Average		
NatureLine 90 Larch Triple	0,52	1,20	1,10	1,10	1,13	0,132	0,117	0,117	0,121	0,024	0,024	0,024	0,024	0,76	0,78
NatureLine 90 Oak Triple	0,52	1,51	1,39	1,39	1,42	0,132	0,117	0,117	0,121	0,024	0,024	0,0238	0,024	0,75	0,87
NatureLine 90 Larch Double	1,14	1,28	1,17	1,17	1,20	0,132	0,117	0,117	0,121	0,028	0,028	0,028	0,028	0,62	1,23
NatureLine 90 Oak Double	1,14	1,59	1,46	1,46	1,50	0,132	0,117	0,117	0,121	0,028	0,028	0,028	0,028	0,62	1,32
NatureLine 90 PASSIVE	0,52	1,12	1,03	1,03	1,06	0,132	0,105	0,105	0,112	0,024	0,024	0,024	0,024	0,76	0,74

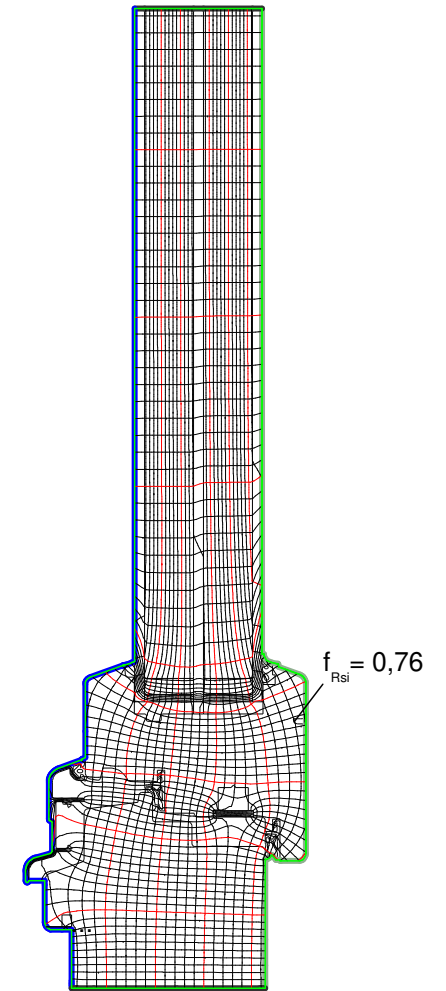
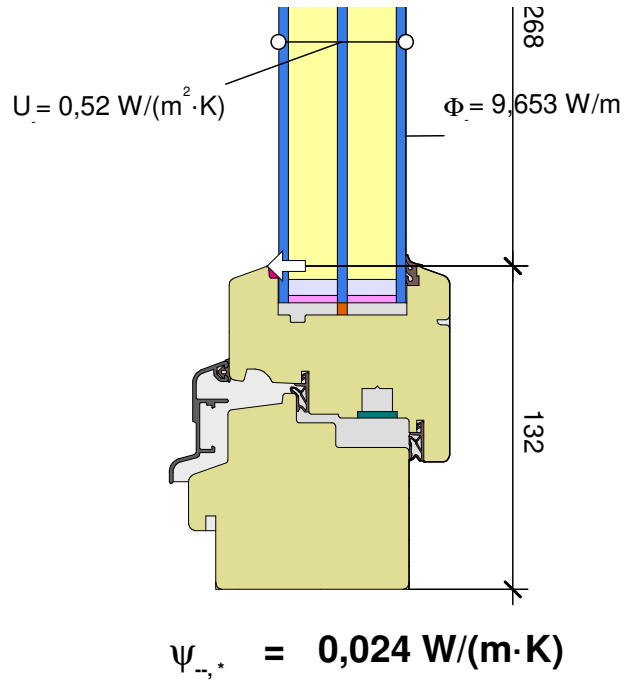
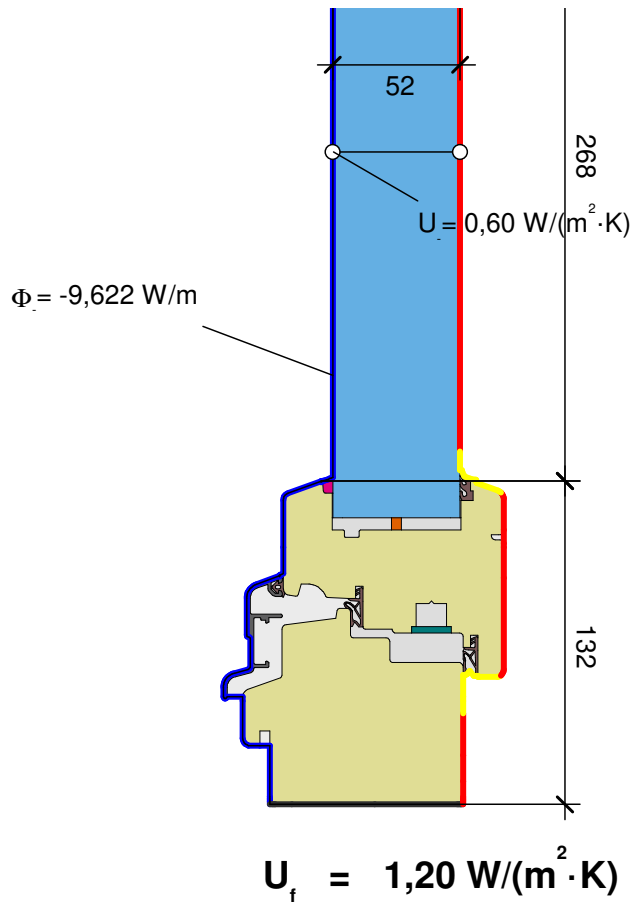
Drawings and material data were provided by the manufacturer. The sole responsibility for the provided information lies with the manufacturer.

Recommended for climate zone

90 Larch Triple 90 PASSIVE								
	arctic	cold	cool, temperate	warm, temperate	warm	hot	very hot	
90 Oak Triple								
	arctic	cold	cool, temperate	warm, temperate	warm	hot	very hot	

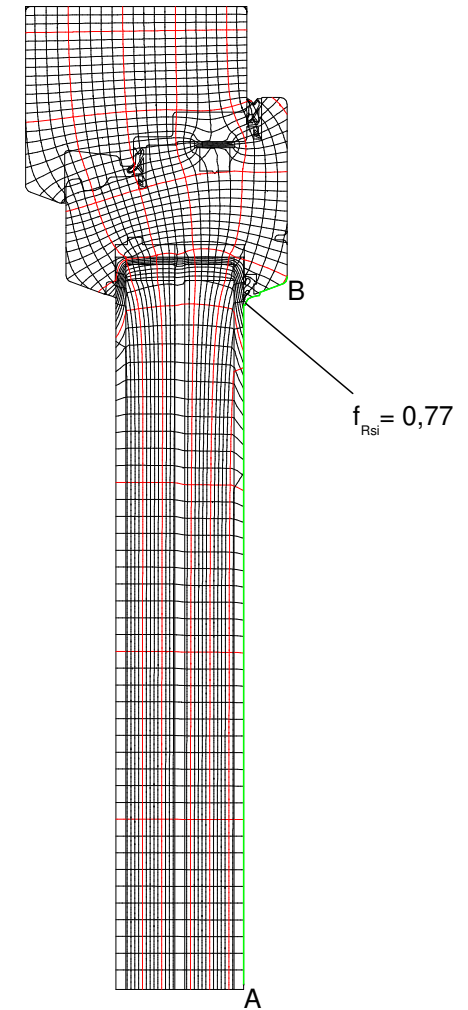
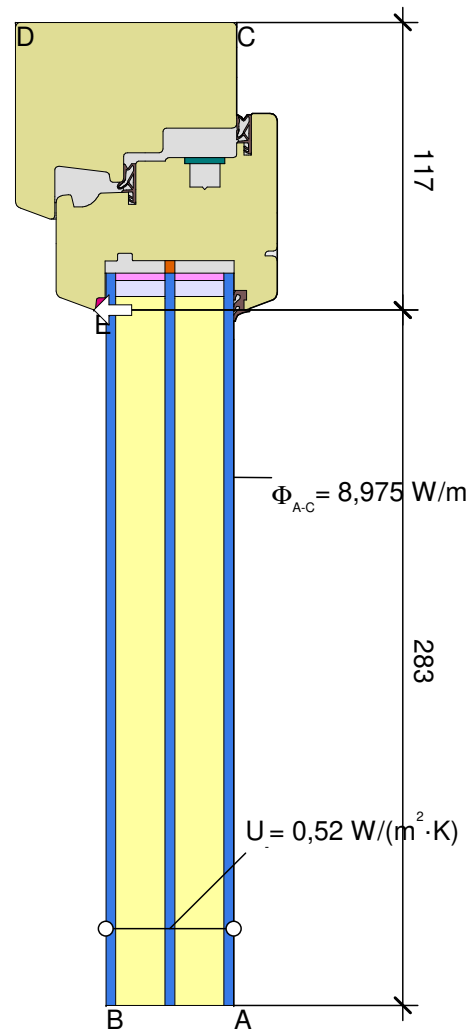
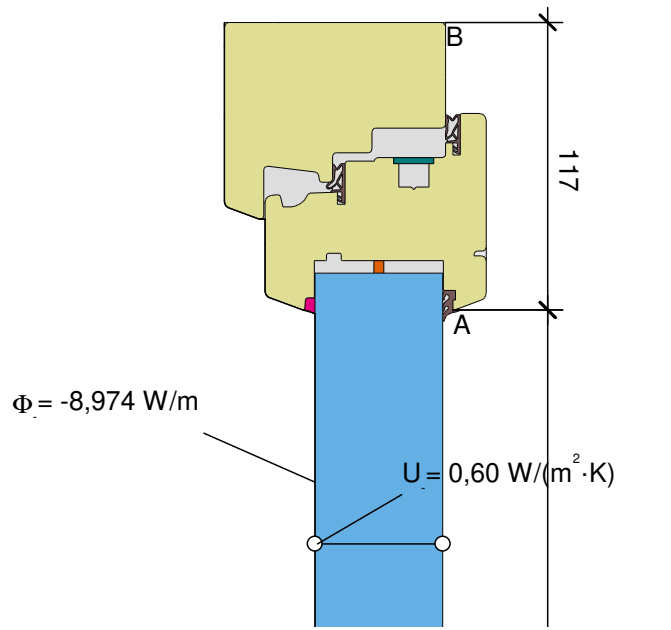
Randbedingung	q[W/m ²]	θ[°C]	R[(m ² ·K)/W]	ε
Adiabatic Adiat	0,000			
Exterior Außen		-10,000	0,040	
Interior, frame, normal		20,000	0,130	
Interior, frame, reduced		20,000	0,200	
e 0,9 Cavity Hohlraum				0,900

Material	λ[W/(m·K)]	ε
Aluminum Aluminium 10456	160,000	0,900
Ar20 in 52 mm U 0,52	0,023	
EPDM	0,250	0,900
Glass Glas	1,000	0,900
Insulation Wärmedämmung 050	0,050	0,900
Polysulfide Polysulfid	0,400	0,900
SWISSP. Ultimate Box 2 [cert]	0,140	
Silicone Silikon	0,350	0,900
Softwood, OSB Weichholz, OSB 10456	0,130	0,900
Steel Stahl	50,000	0,900
Unvent. cavity unbel. Hohlr. **		
slightly vent. cav. leicht bel. Hohlr. **		
** EN ISO 10077-2:2017, 6.4.3		



NatureLine 90 bottom | Larch | Triple glazing

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	



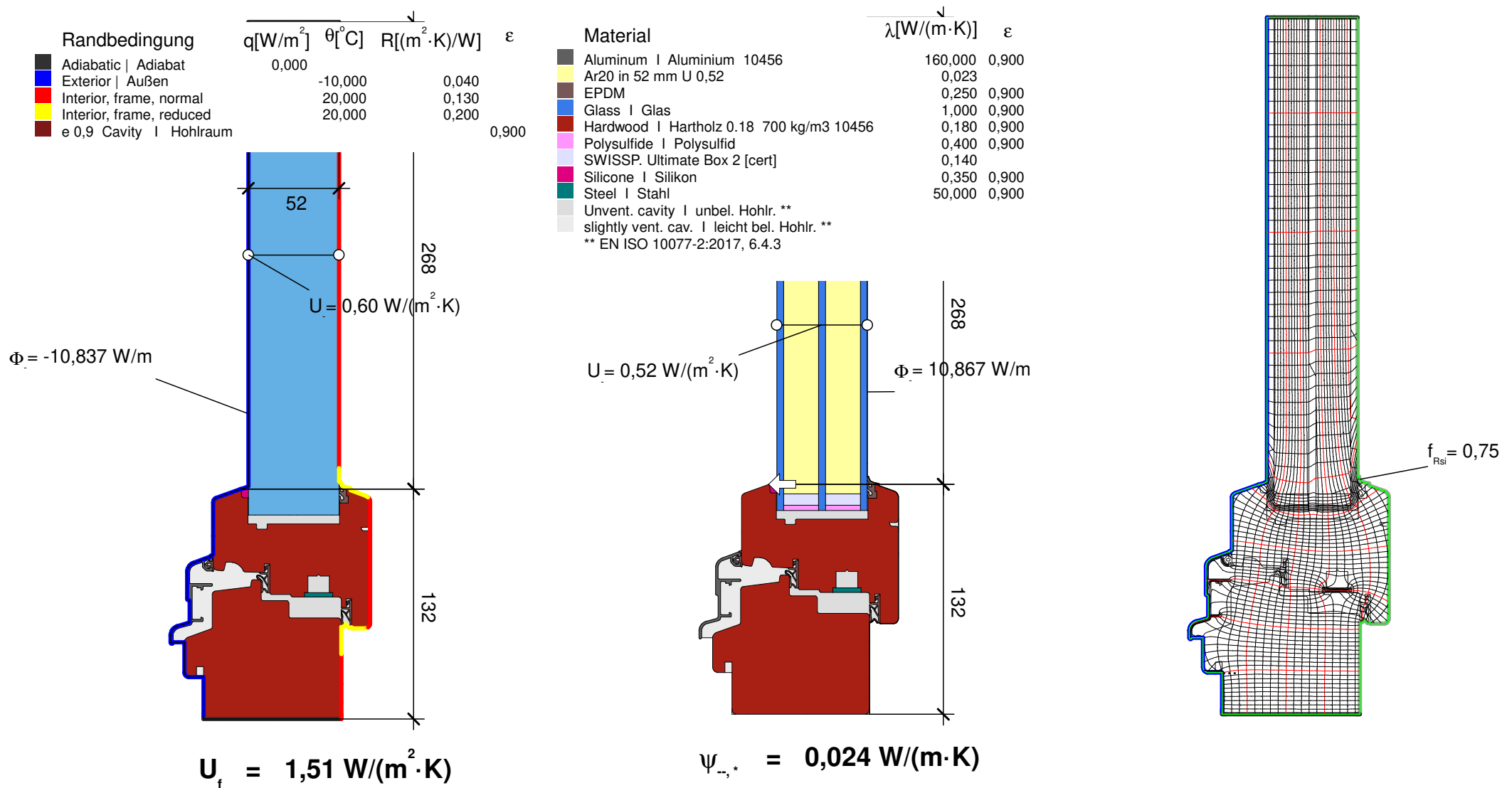
Material	λ [W/(m·K)]	ϵ
Ar20 in 52 mm U 0,52	0,023	
EPDM	0,250	0,900
Glass Glas	1,000	0,900
Insulation Wärmedämmung 050	0,050	0,900
Polysulfide Polysulfid	0,400	0,900
SWISSP. Ultimate Box 2 [cert]	0,140	
Silicone Silikon	0,350	0,900
Softwood, OSB Weichholz, OSB 10456	0,130	0,900
Steel Stahl	50,000	0,900
Unvent. cavity unbel. Hohlr. **		
slightly vent. cav. leicht bel. Hohlr. **		

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$$U_{f A, B} = 1,10 \text{ W}/(\text{m}^2 \cdot \text{K})$$

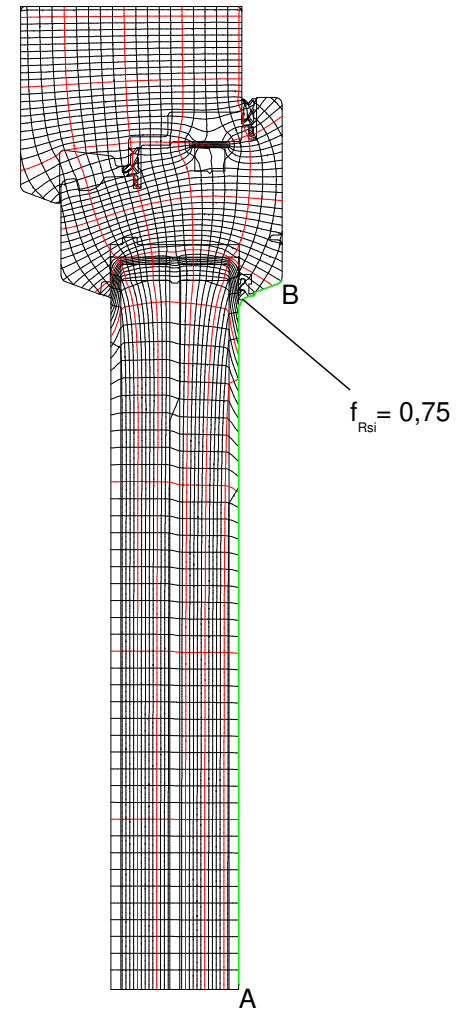
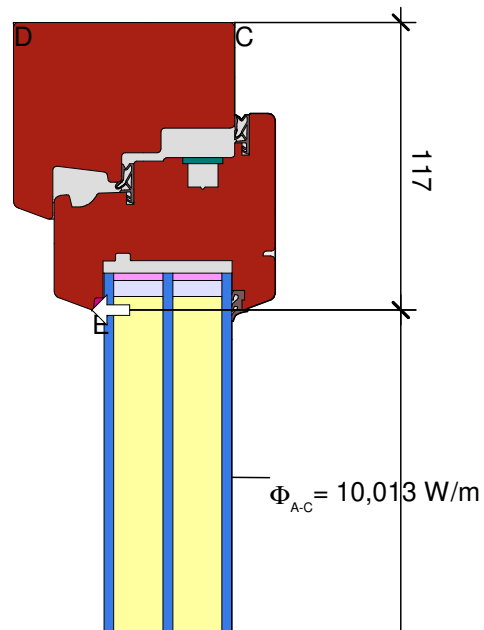
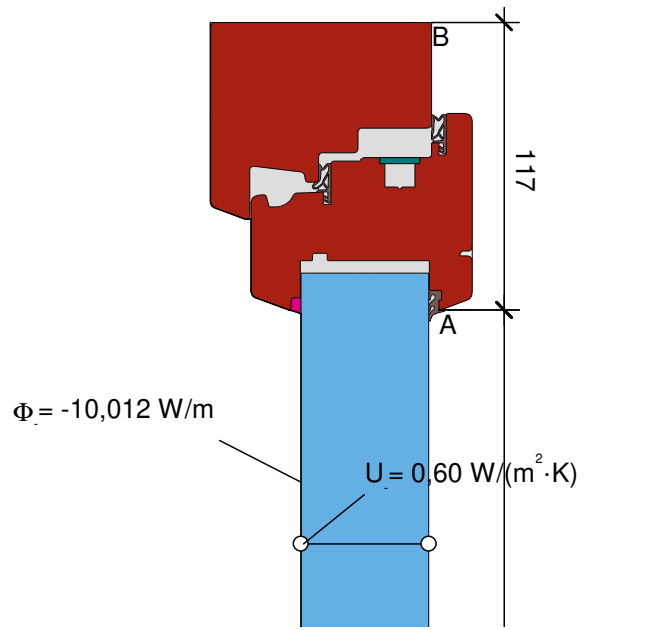
$$\psi_{A-E-C, * } = 0,024 \text{ W}/(\text{m} \cdot \text{K})$$

NatureLine 90 top/side | Larch | Triple glazing



NatureLine 90 bottom | Oak | Triple glazing

Randbedingung	$q[W/m^2]$	$\theta[^\circ C]$	$R[(m^2 \cdot K)/W]$	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	



Material	λ [W/(m·K)]	ϵ
Ar20 in 52 mm U 0,52	0,023	
EPDM	0,250	0,900
Glass Glas	1,000	0,900
Hardwood Hartholz 0.18 700 kg/m ³ 10456	0,180	0,900
Polysulfide Polysulfid	0,400	0,900
SWISSP. Ultimate Box 2 [cert]	0,140	
Silicone Silikon	0,350	0,900
Steel Stahl	50,000	0,900
Unvent. cavity unbel. Hohlr. **		
slightly vent. cav. leicht bel. Hohlr. **		

** EN ISO 10077-2:2017, 6.4.3

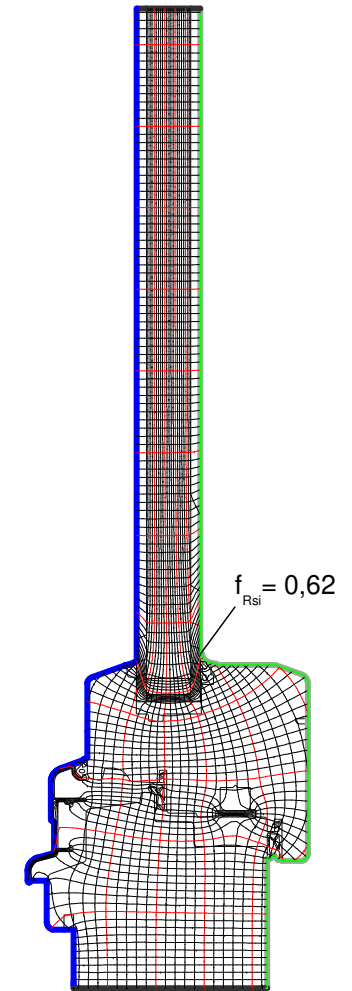
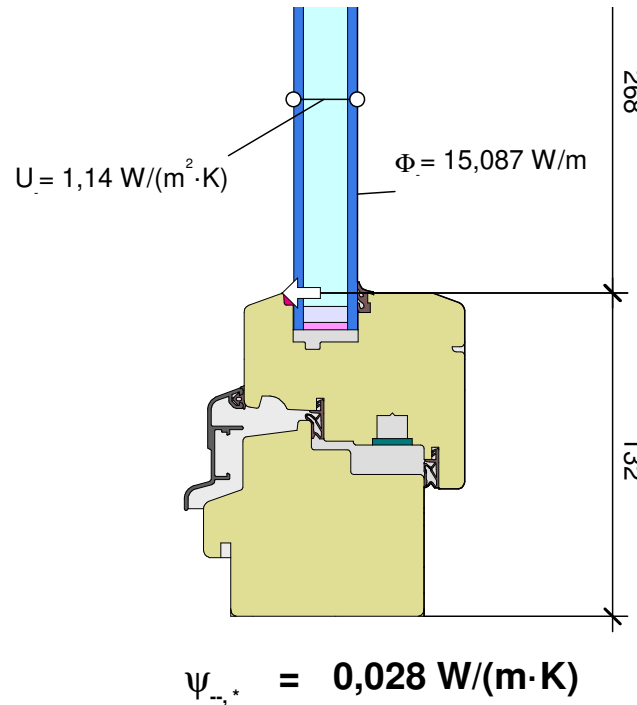
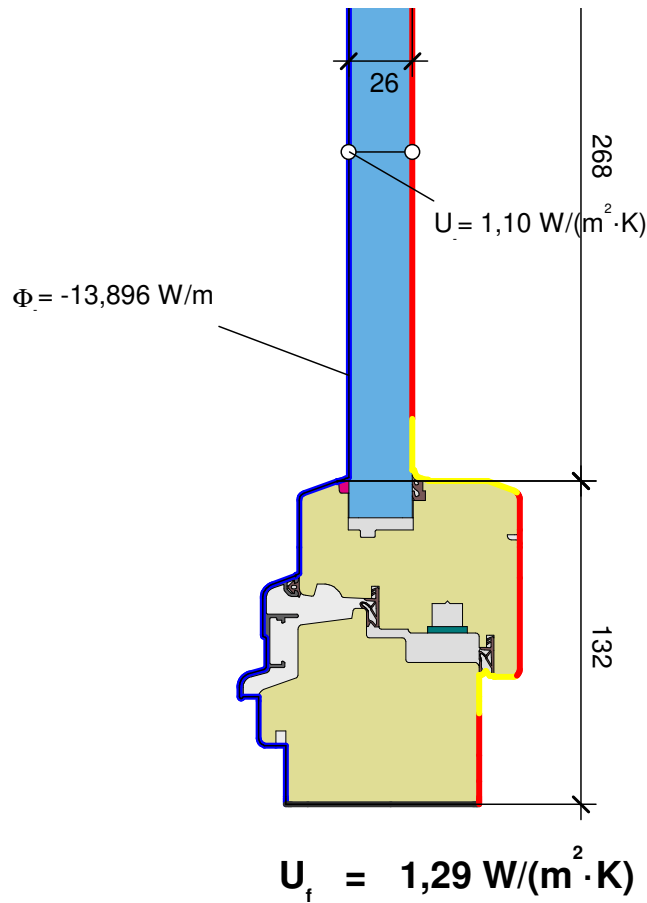
$$U_{fA,B} = 1,39 \text{ W/(m}^2 \cdot \text{K)}$$

$$\psi_{A-E-C,*} = 0,024 \text{ W/(m} \cdot \text{K)}$$

NatureLine 90 top/side | Oak | Triple glazing

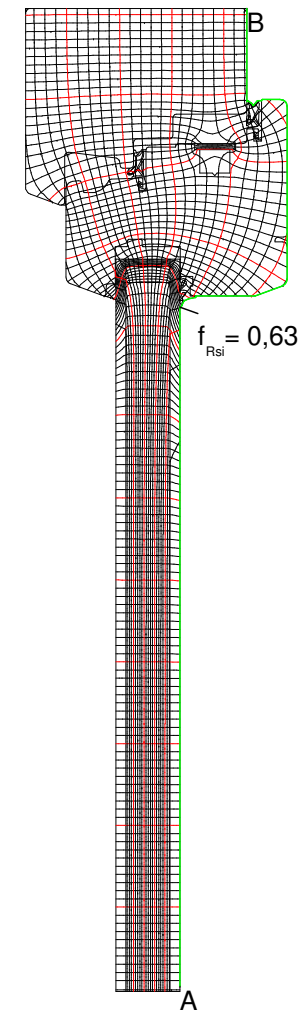
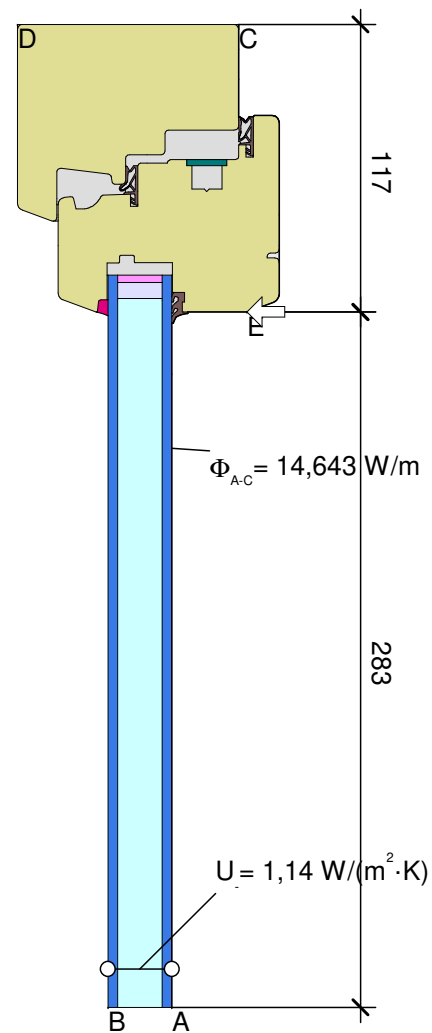
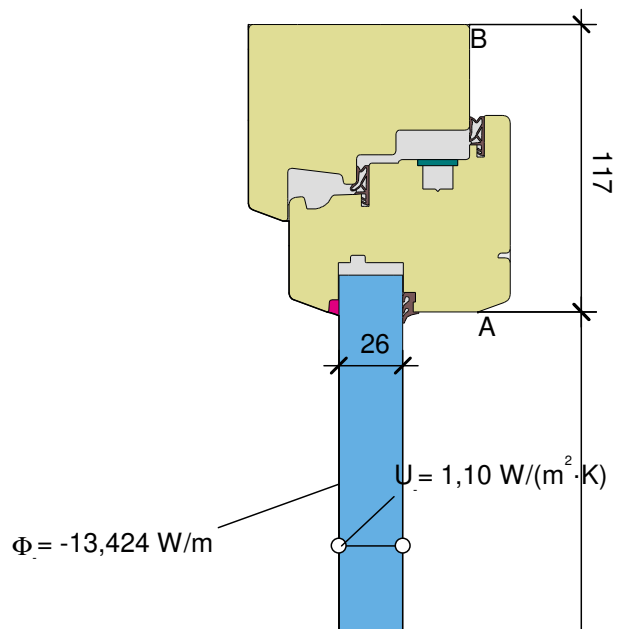
Randbedingung	q[W/m ²]	θ[°C]	R[(m ² ·K)/W]	ε
Adiabatic Adiat	0,000			
Exterior Außen		-10,000	0,040	
Interior, frame, normal		20,000	0,130	
Interior, frame, reduced		20,000	0,200	
e 0,9 Cavity Hohlraum				0,900

Material	λ[W/(m·K)]	ε
Aluminum Aluminium 10456	160,000	0,900
Ar18 in 26 mm U 1,14	0,026	
EPDM	0,250	0,900
Glass Glas	1,000	0,900
Polysulfide Polysulfid	0,400	0,900
SWISSP. Ultimate Box 2 [cert]	0,140	
Silicone Silikon	0,350	0,900
Softwood, OSB Weichholz, OSB 10456	0,130	0,900
Steel Stahl	50,000	0,900
Unvent. cavity unbel. Hohlr. **		
slightly vent. cav. leicht bel. Hohlr. **		
** EN ISO 10077-2:2017, 6.4.3		



NatureLine 90 bottom | Larch | Double glazing

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	



Material	λ [W/(m·K)]	ϵ
Ar18 in 26 mm U 1,14	0,026	
EPDM	0,250	0,900
Glass Glas	1,000	0,900
Polysulfide Polysulfid	0,400	0,900
SWISSP. Ultimate Box 2 [cert]	0,140	
Silicone Silikon	0,350	0,900
Softwood, OSB Weichholz, OSB 10456	0,130	0,900
Steel Stahl	50,000	0,900
Unvent. cavity unbel. Hohlr. **		
slightly vent. cav. leicht bel. Hohlr. **		

** EN ISO 10077-2:2017, 6.4.3

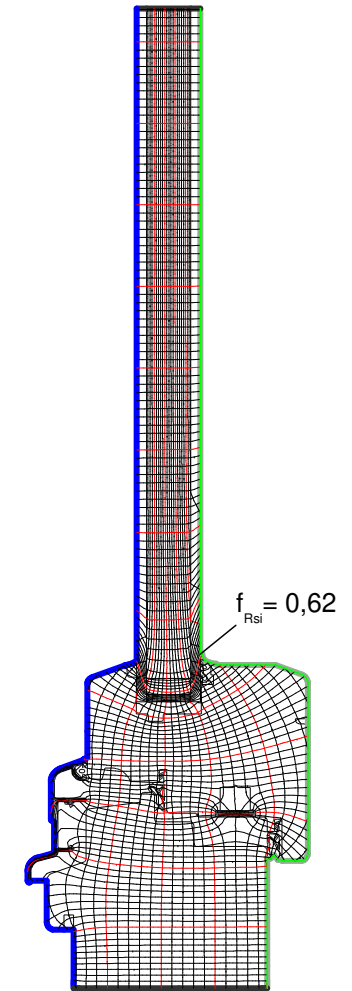
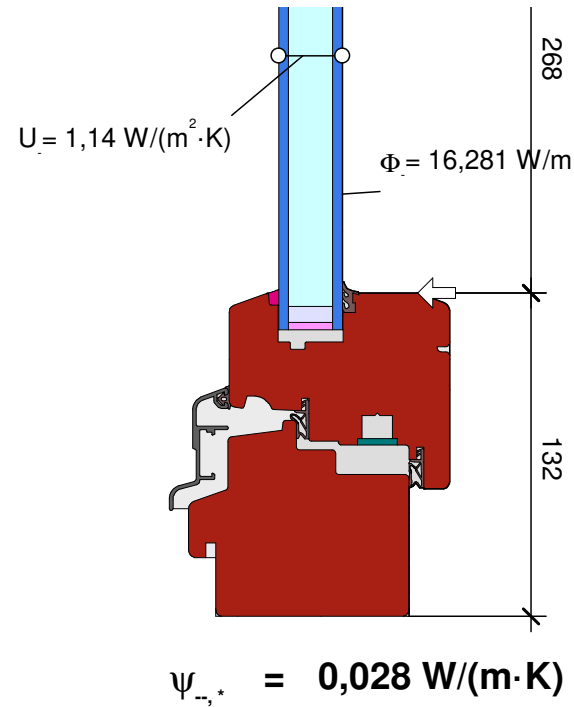
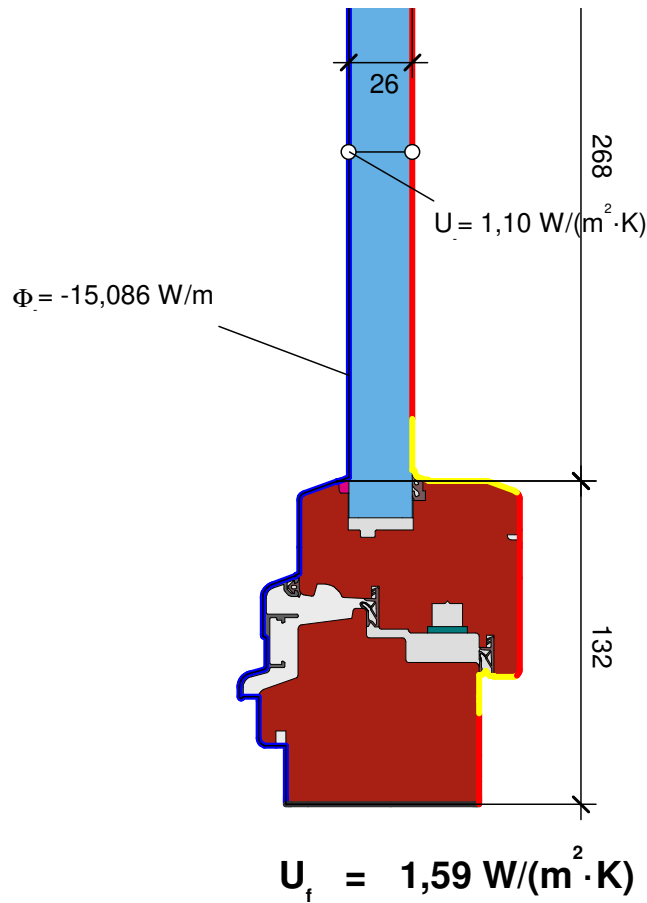
$$U_{fA,B} = 1,17 \text{ W}/(\text{m}^2 \cdot \text{K})$$

$$\Psi_{A-E-C,*} = 0,028 \text{ W}/(\text{m} \cdot \text{K})$$

NatureLine 90 top/side | Larch | Double glazing

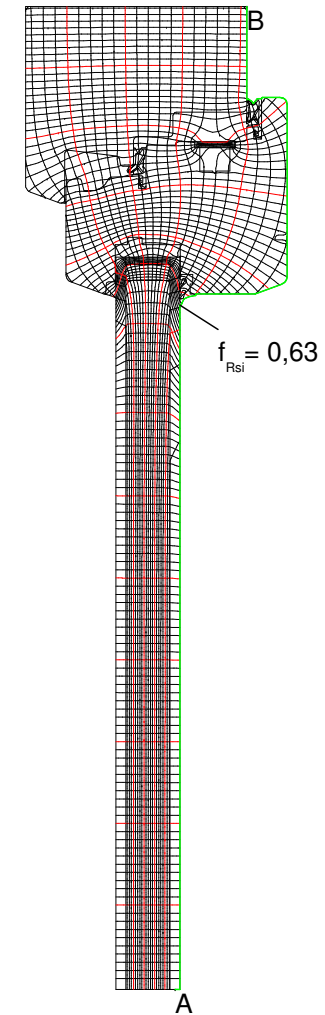
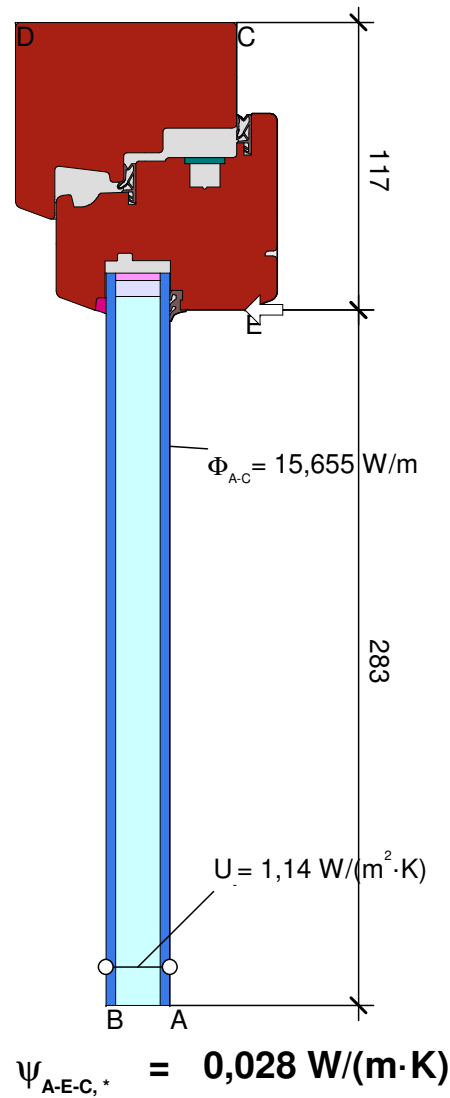
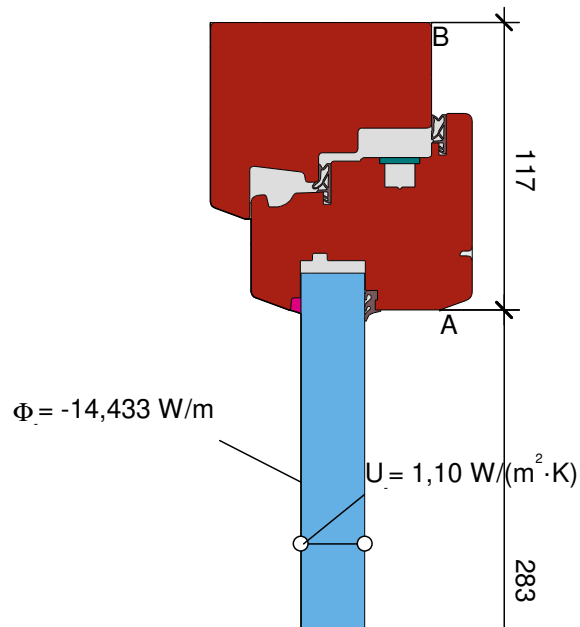
Randbedingung	q[W/m ²]	θ[°C]	R[(m ² ·K)/W]	ε
Adiabatic Adiat	0,000			
Exterior Außen		-10,000	0,040	
Interior, frame, normal		20,000	0,130	
Interior, frame, reduced		20,000	0,200	
e 0,9 Cavity Hohlraum				0,900

Material	λ[W/(m·K)]	ε
Aluminum Aluminium 10456	160,000	0,900
Ar18 in 26 mm U 1,14	0,026	
EPDM	0,250	0,900
Glass Glas	1,000	0,900
Hardwood Hartholz 0.18 700 kg/m3 10456	0,180	0,900
Polysulfide Polysulfid	0,400	0,900
SWISSP. Ultimate Box 2 [cert]	0,140	
Silicone Silikon	0,350	0,900
Steel Stahl	50,000	0,900
Unvent. cavity unbel. Hohlr. **		
slightly vent. cav. leicht bel. Hohlr. **		
** EN ISO 10077-2:2017, 6.4.3		



NatureLine 90 bottom | Oak | Double glazing

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	

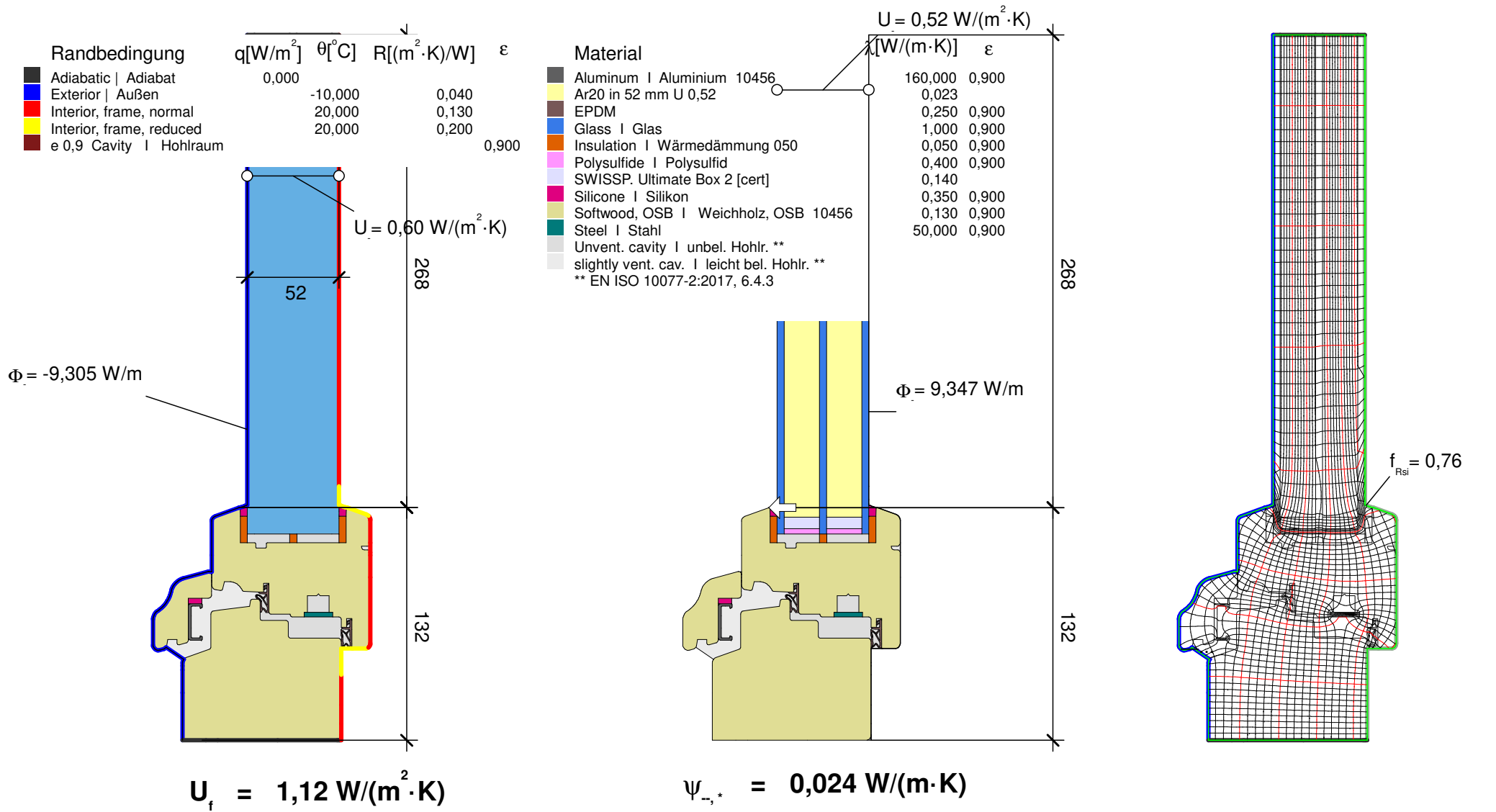


Material	λ [W/(m·K)]	ϵ
Ar18 in 26 mm U 1,14	0,026	
EPDM	0,250	0,900
Glass Glas	1,000	0,900
Hardwood Hartholz 0.18 700 kg/m3 10456	0,180	0,900
Polysulfide Polysulfid	0,400	0,900
SWISSP. Ultimate Box 2 [cert]	0,140	
Silicone Silikon	0,350	0,900
Steel Stahl	50,000	0,900
Unvent. cavity unbel. Hohlr. **		
slightly vent. cav. leicht bel. Hohlr. **		

** EN ISO 10077-2:2017, 6.4.3

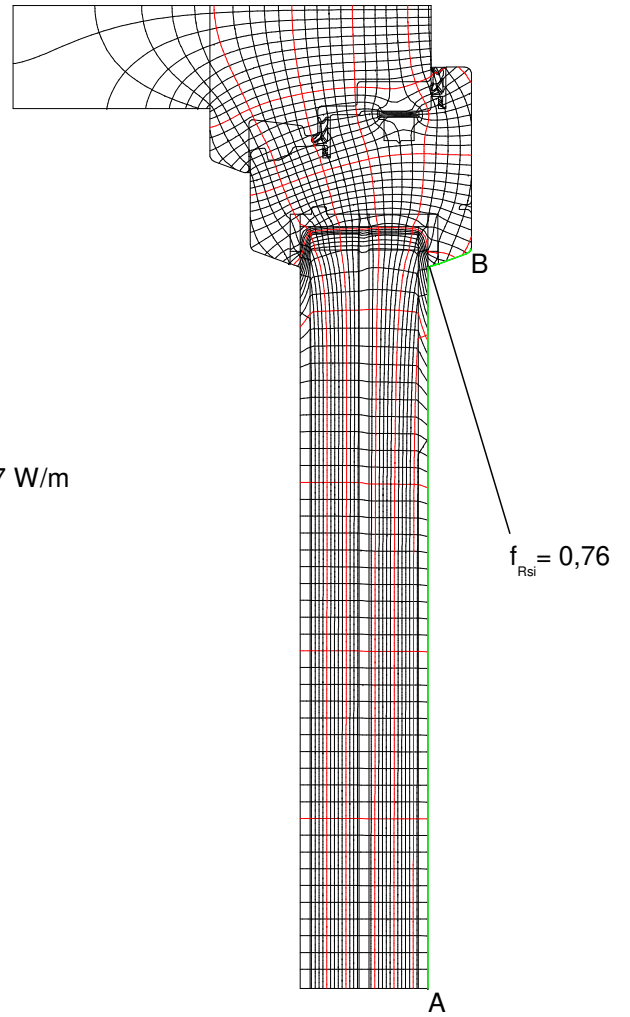
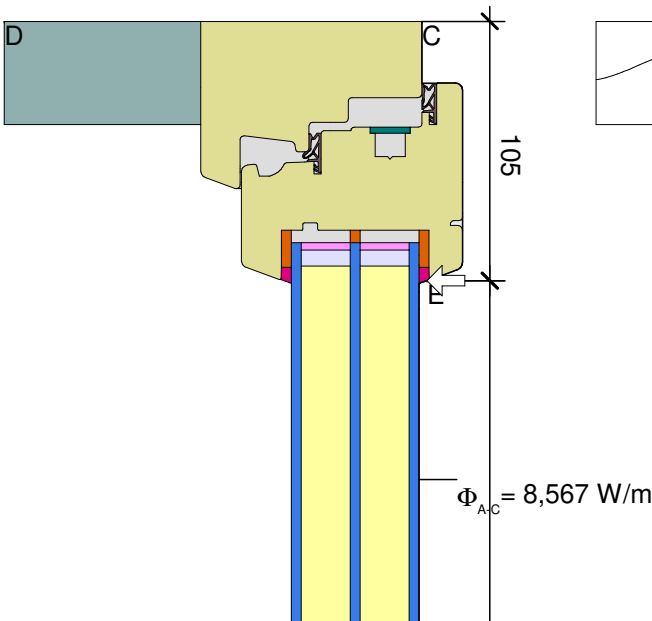
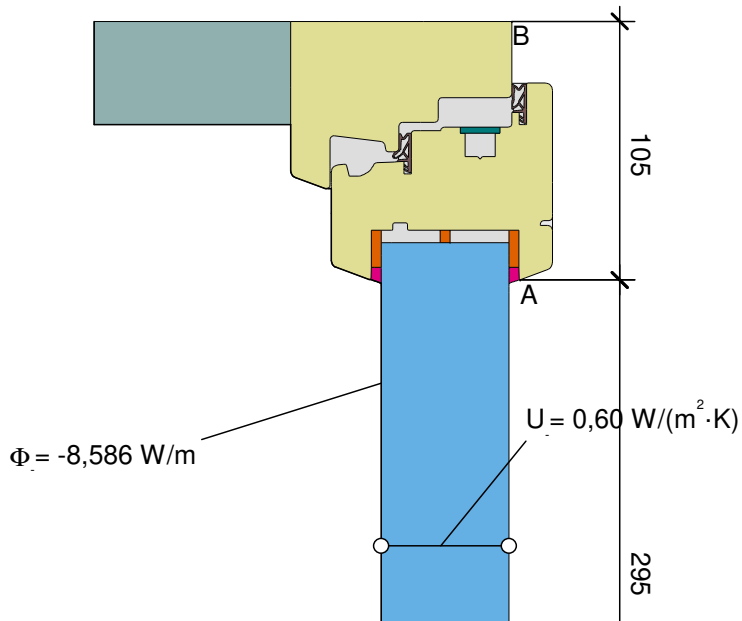
$$U_{fA,B} = 1,46 \text{ W/(m}^2 \cdot \text{K)}$$

NatureLine 90 top/side | Oak | Double glazing



NatureLine 90 bottom | PASSIVE

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	



Material

Material	λ [W/(m·K)]	ϵ
Ar20 in 52 mm U 0,52	0,023	
EPDM	0,250	0,900
Glass Glas	1,000	0,900
Insulation Wärmedämmung 050	0,050	0,900
Polysulfide Polysulfid	0,400	0,900
SWISSP. Ultimate Box 2 [cert] (1)	0,140	
Silicone Silikon	0,350	
Softwood, OSB Weichholz, OSB 10456	0,130	0,900
Spruce, Fir Fichte, Tanne	0,110	
Steel Stahl	50,000	0,900
Unvent. cavity unbel. Hohlr. **		
slightly vent. cav. leicht bel. Hohlr. **		

** EN ISO 10077-2:2017, 6.4.3

$$U_{fA,B} = 1,03 \text{ W}/(\text{m}^2 \cdot \text{K})$$

$$\psi_{A-E-C,*} = 0,024 \text{ W}/(\text{m} \cdot \text{K})$$

NatureLine 90 top/side | PASSIVE