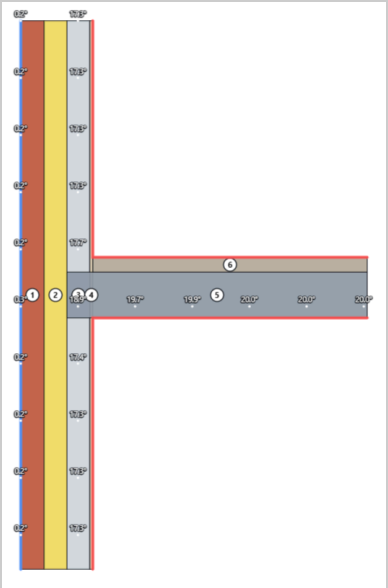
Thermal bridge calculation — ψ values

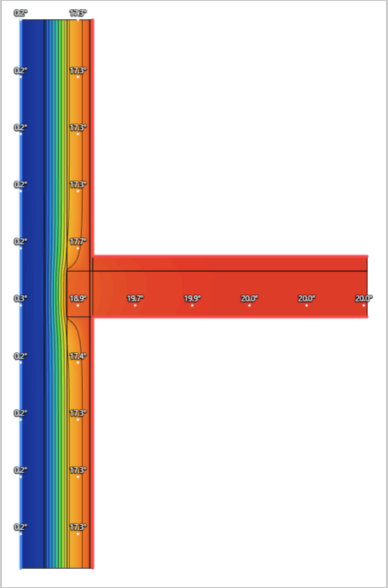
linear thermal transmittance per ISO 10211:2017 (2D). 2026-09-05 06:08 PM

Sheet: Example

Model



Temperature field



Boundary conditions

Internal temperature	20.0 °C
External temperature	0.0 °C
R_{si}	0.13 m^2K/W
R_{se}	0.04 m^2K/W

Bill of materials

#	Material	λ W/(m·K)
1	Brick (outer leaf)	0.77
2	Mineral wool	0.038
3	Aircrete block (AAC)	0.16
4	Gypsum plaster	0.57
5	Concrete (dense, reinforced)	2.3
6	Cement screed	1.15

Numbers correspond to the callouts in the model drawing.

Flanking elements

Element	U W/m²K	l (m)	U·l W/(m·K)
External wall	0.28	2.4	0.6720
Σ U·l			**0.6720**

Results

L^{2D} thermal coupling coefficient	0.6869 W/(m·K)
ψ value	**0.015 W/(m·K)**
Heat flow Q	13.738 W/m
f_{Rsi} (R_{si} = 0.25 m²K/W)	0.932
Minimum internal surface temperature	18.65 °C

Solver & mesh

Mesh	606 × 960 cells @ 2.5 mm (171,840 unknowns)
Heat-flow balance error	4.48e-8 %
Iterations / residual	1471 / 1.0e-9
Method	2D finite volume, harmonic-mean conductances, PCG solver — ISO 10211:2017

Generated with ψ Calculator. Verify cut-off plane positions (≥1 m per ISO 10211) and that flanking lengths match the dimension convention of the associated U-value areas.