UNILIN
Technical Services from Unilin Insulation

CAVITYTHERM

Linear Thermal Transmittance (Ψ) & Temperature Factor (f)



Technical competency: The Psi value (Ψ) analysis indicated below has been undertaken by a BRE accredited competent person to EN 10211 2017 and BR497 (Second Edition).

Certificate No	Date
UI-CTPIR-E12-RG-01 V2	31-Aug-26

Calculation prepared by
Unilin Insulation Technical Services

General Construction Specification (Wall)
Plasterboard on dabs
Air layer & plaster adhesive
Concrete block
Unilin Insulation CavityTherm CT/PIR
Residual cavity (5mm)
Proprietary fire barrier
Brick

General Construction Specification (Ceiling)
Mineral wool between & over joists
Vapour control layer
Plasterboard

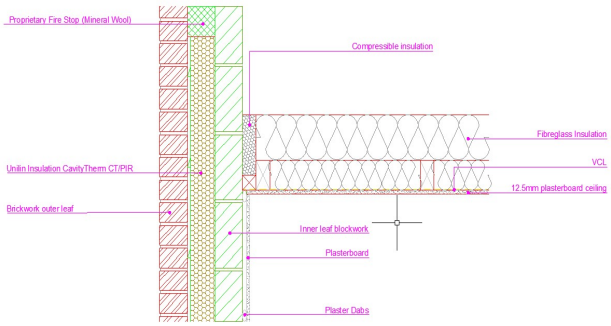
Table K1 reference
E12

Description
Wall ceiling junction gable (Insulation at ceiling level)

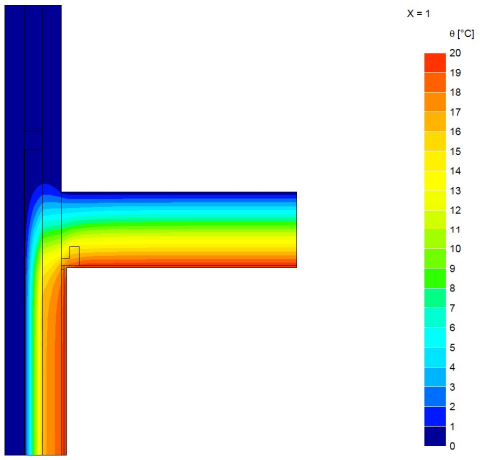
U value range (Wall)
0.12 W/m^{2}K - 0.21 W/m^{2}K

U value range
0.10 W/m2K - 0.16 W/m2K

Junction detail



Thermal image



Notes

The U values indicated on this certificate are the actual U values for the proposed construction. The Psi values are calculated using the modelled U value in accordance with the guidelines set out in BR497 and ISO 10211. Contact Unilin Insulation technical support for further guidance

Ψ and f are only valid for the detail drawn and described above

Calculations have been carried out in accordance with the following standards and guidance documents were relevant

EN ISO 10211 2017

EN ISO 13370 2017

EN ISO 6946 2017

BR 497 (Second Edition)

BR 443 2019

BRE IP1/06

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Disclaimer: The calculations have been completed in accordance with guidance documents as indicated above by Unilin Insulation. Any change to the materials specified would alter the results achieved and would invalidate the information contained herein. Specification and results should be verified before installation. To this extent the information and/or specification is to the best of our knowledge accurate, however Unilin Insulation specifically exclude any liability for errors, omissions or otherwise arising therefrom.

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Ceiling Mineral wool (0.040 W/m K) 300mm

CavityTherm	100mm		110mm		125mm		150mm	
	Ψ	*f*	Ψ	*f*	Ψ	*f*	Ψ	*f*
Inner block								
0.11	0.056	0.91	0.055	0.91	0.055	0.92	0.054	0.92
0.15	0.063	0.91	0.062	0.91	0.062	0.91	0.061	0.92
0.19	0.070	0.90	0.069	0.90	0.068	0.91	0.068	0.91
0.31	0.088	0.89	0.088	0.89	0.088	0.89	0.087	0.90
0.57	0.121	0.87	0.121	0.87	0.121	0.88	0.121	0.88
1.13	0.191	0.82	0.191	0.82	0.192	0.85	0.194	0.85

Ceiling Mineral wool (0.040 W/m K) 400mm

CavityTherm	100mm		110mm		125mm		150mm	
	Ψ	*f*	Ψ	*f*	Ψ	*f*	Ψ	*f*
Inner block								
0.11	0.052	0.92	0.051	0.92	0.050	0.93	0.049	0.93
0.15	0.058	0.92	0.057	0.92	0.056	0.92	0.055	0.93
0.19	0.064	0.91	0.063	0.91	0.062	0.92	0.060	0.92
0.31	0.080	0.90	0.079	0.90	0.078	0.91	0.077	0.91
0.57	0.108	0.88	0.108	0.89	0.107	0.89	0.106	0.89
1.13	0.170	0.84	0.170	0.86	0.170	0.86	0.170	0.87

Ceiling Mineral wool (0.040 W/m K) 450mm

CavityTherm	100mm		110mm		125mm		150mm	
	Ψ	*f*	Ψ	*f*	Ψ	*f*	Ψ	*f*
Inner block								
0.11	0.051	0.92	0.050	0.92	0.049	0.93	0.047	0.93
0.15	0.057	0.92	0.056	0.92	0.054	0.92	0.053	0.93
0.19	0.062	0.91	0.061	0.91	0.060	0.92	0.058	0.92
0.31	0.077	0.90	0.076	0.91	0.075	0.91	0.073	0.91
0.57	0.104	0.89	0.103	0.89	0.102	0.89	0.101	0.91
1.13	0.162	0.84	0.162	0.87	0.161	0.87	0.161	0.87

Ψ Thermal transmittance value (W/m K)

f Temperature factor

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