HEAT-INSULATING SANDWICH ELEMENTS

Low weight, high strength and unlimited design flexibility for surfaces and façades, this is the recipe for success of the innovative sandwich systems of Weiss.

We would like to advise you!

Your specialist dealer

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Technical information on U value

Explanations

U-value	Overall coefficient of heat transfer U *This value defines the thermal insulation behaviour of a structural element*	W / (m²×k)
WLG	Thermal conductivity group	λW / (m×k)

How to determine the U-value by calculation is regulated in DIN 4108 part 4

PUR/AL	Polyurethane rigid foam with Vapour-diffusion tight aluminium film	WLG 025
PUR	Polyurethane rigid foam of cut from block foam	WLG 025
XPS	Polystyren rigid foam extruded	WLG 030 | 035
EPS	Polystyren rigid foam expanded	WLG 035 | 040
MIN	Mineral fibre insulating material	WLG 035 | 040
TK	Thermoplastic plastic material	WLG 040 | 045

Core material (Thickness in mm)	WLG ($\lambda \le 025$) U-value	WLG ($\lambda \le 030$) U-value	WLG ($\lambda \le 035$) U-value	WLG ($\lambda \le 040$) U-value
16	1.23	1.39	1.49	1.75
20	1.03	1.16	1.26	1.49
21	0.99	1.12	1.21	1.44
22	0.95	1.08	1.17	1.39
24	0.88	1.00	1.09	1.30
25	0.85	0.97	1.05	1.26
27	0.80	0.91	0.99	1.18
29	0.75	0.86	0.93	1.12
30	0.73	0.83	0.90	1.09
32	0.69	0.79	0.86	1.03
33	0.67	0.77	0.83	1.00
37	0.60	0.69	0.76	0.91
40	0.56	0.65	0.70	0.85

For comparison:
Outer wall of masonry bricks, thickness 365 mm, U-value: 0.80 W/m²K

Examples for application

Façades

Window sills

Doorpanels

Refrigerated lorry

COSMO ENERGY

Heat-insulating composite panels
Active protection of environment

09/20

Product description

COSMO ENERGY

Energy-saving elements

At a time when energy resources are limited, increasing importance is attached to the topics of energy efficiency and thermal insulation in the building and industry sector. With our product line COSMO ENERGY we are offering to you a variety of high-grade element variants with outstanding thermal insulation properties and in this way, we actively support you in saving energy.

Examples for surfaces

Product examples

COSMO THERM
PVC/1.5-PUR/AL
U-value 0.66
Thermal conductivity group: 025
Total thickness: 36.0 mm
Lambda value: 0.025 W/mK

COSMO THERM
PVC/1.5-XPS
U-value 0.84
Thermal conductivity group: 035
Total thickness: 36.0 mm
Lambda value: 0.033 W/mK

COSMO THERM
ALU/1.0-XPS
U-value 1.07
Thermal conductivity group: 030
Total thickness: 24.0 mm
Lambda value: 0.029 W/mK

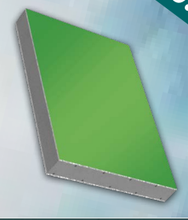
COSMO THERM
PLYWOOD/4.0- PUR/ AL
U-value 0.66
Thermal conductivity group: 025
Total thickness: 40.0 mm
Lambda value: 0.025 W/mK

COSMO THERM
PVC/1.5-XPS
U-value 0.84
Thermal conductivity group: 030
Total thickness: 32.0 mm
Lambda value: 0.029 W/mK

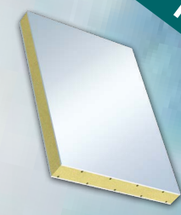
COSMO THERM
GRP/1.5-XPS
U-value 1.21
Thermal conductivity group: 035
Total thickness: 24.0 mm
Lambda value: 0.033 W/mK

COSMO THERM
PVC/1.5-XPS
U-value 0.75
Thermal conductivity group: 030
Total thickness: 36.0 mm
Lambda value: 0.029 W/mK

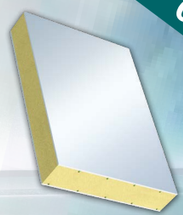
COSMO THERM
ALU/1.0-XPS
U-value 0.94
Thermal conductivity group: 030
Total thickness: 28.0 mm
Lambda value: 0.029 W/mK



COSMO THERM
PVC/1.5-XPS
U-value 1.21
Thermal conductivity group: 035
Total thickness: 24.0 mm
Lambda value: 0.033 W/mK



COSMO THERM
PVC/1.5-XPS
U-value 0.76
Thermal conductivity group: 035
Total thickness: 40.0 mm
Lambda value: 0.033 W/mK



COSMO THERM
HPL/HD/2.0-XPS
U-value 0.99
Thermal conductivity group: 030
Total thickness: 28.0 mm
Lambda value: 0.029 W/mK

COSMO THERM
PLYWOOD/4.0-XPS
U-value 1.41
Thermal conductivity group: 035
Total thickness: 24.0 mm
Lambda value: 0.033 W/mK