

Technical values / product key figures



VACOSI COMPACT

The core of the vacuum insulation panels, VIP for short, consist of pressure-resistant fumed silica. This is mixed with opacifiers and fibres to reduce the transmission of thermal radiation. The powder is compressed into a supporting body that is non-combustible, environmentally compatible and not hazardous to health. It is then evacuated and sealed in film. The evacuation is the key to the high insulating properties of the VIP. In a special process, the panel is coated with a glass fibre reinforced plastic (GRP), this gives the panel its hard surface and protects the VIP from damage. The VACOSI COMPACT element can be laid or glued directly without any further preparation

Technical data

Characteristics	Unit	Values	Comment
Panel thickness	mm	15/20/25/30	Other thicknesses can be clarified
Standard sizes	mm	1010 x 1010 1010 x 505 505 x 505	
Custom formats	mm	-	according to order / room layout, designs possible as rectangle, triangle, trapezoid and special shapes, max. element size 2025 x 1025 mm
Colour	-	-	red or white, special colour upon request
Delivery times			Standard sizes from stock Special sizes 2-4 weeks

Product key figures

Thermal insulation	Unit	15mm	20mm	25mm	30mm
Thermal conductivity declared	λ^d			0,007	
Thermal conductivity measured	λ			$\leq 0,005$	
U-value declared	$(\lambda^d/\text{thickness})$	0.46	0.35	0.28	0.22
Physical properties					
Application temperature range	T			-200 to +100	
Volume weight (core)**	ρ			180 - 200	
Surface density		approx. 7.2	approx. 7.9	approx. 8.6	approx. 9.3
Compressive load capacity (at 10% compression)				200	
Tolerance					
Thickness tolerance	mm			$\pm 1,0$	
Width tolerance	mm	+ 1.0 / -3.0 (standard)		+1.0 / -5.0 (special)	
Length tolerance	mm	+ 1.0 / -3.0 (standard)		+1.0 / -5.0 (special)	
Other properties					
Surface				smooth or optionally coarse (surcharge)	
Internal pressure *** (upon delivery)	mbar			≤ 5	
Calculated pressure increase				approx. 1 mbar / a	

** depending on panel thickness

*** Depending on the panel size, the internal pressure can be between 0.5 and 5.0 mbar. The standard internal pressure in the evacuation chamber is <0.5 mbar.