

va-Q-vip B

Product Data Sheet

Characteristics

va-Q-vip B is a vacuum insulation panel for construction applications. va-Q-vip B is covered in a high barrier film and an additional black glass fibre textile for mechanical shock protection. va-Q-vip B with black glass fabric is standardly flammable (construction materials class DIN 4102-B2).

va-Q-vip B is approved for general construction purposes in accordance with approval number Z-23.11-1658 of the "Deutsches Institut für Bautechnik (DIBT)". On July 1st 2015 the validity of this approval was extended until June 30th 2020.

va-Q-vip B elements are unique because of their rectangular edges and corners. This is due to the special edge folding technique "va-Q-seam". Individual elements can be joined together almost seamlessly.

Applications

va-Q-vip B can be used in buildings in areas like interior applications for ceilings, walls, floors, flat roofs, top floor ceilings, exterior insulation behind panelling or insulation in wood frame constructions according to standard DIN 4108-10, Table 1.

Developers, installation partners or architects should supervise the specific insulation system. Application systems for buildings can also be discussed directly with va-Q-tec.

Advantages

- Official approval for building material with assigned thermal conductivity 0.007 W/mK
- Significantly reduced heat flows and thickness
- Saves space, providing larger usable area
- Extra protective layer for reliable installation

Product Data

Surface color	black
Outer appearance	Rectangular shape without flanges
Density (raw panel DIN EN 1602)	180 to 210 kg/m ³ for > 10 mm, 180 to 250 kg/m ³ for ? 10 mm
Thermal conductivity - initial value	0.0043 W/(mK) at 20 mm thickness (initial value) (? 20 mm thickness)

Thermal conductivity - rated value including aging, edge losses	0,0070 W/(mK) (from 20 mm thickness) 0,0080 W/(mK) (10-15 mm thickness)
Thermal conductivity - with ventilation	0.020 W/(mK)
Temperature stability	-70 °C to +80 °C, temporary 120 °C for 30 min
Thermal shock resistance	Insensitive to heat & cold shock in the given temperature range
Humidity stability	0 % to 70 %
Internal gas pressure	< 5 mbar (at delivery)
Increase of gas pressure	approx. 1 mbar/year (measured, 20 mm thickness)
Standard dimensions (L x W) I & II	I: 1000 mm x 600 mm, II: 500 mm x 600 mm
Special shapes	triangle, trapezoud, corner cut, recessed surfaceand, panel with hole, flanges folding by 10 mm / 15 mm thickness
Thickness	10 to 50 mm
Length tolerance	<ul style="list-style-type: none"> • 0 to 500 mm: +2 / -4 mm • 501 to 1000 mm: +2 / -5 mm
Thickness tolerance	± 5%
Spec. heat capacity powder plate	0.8 kJ/(kg·K) (at room temperature)
U-value initial value	0.22 W/(m²K) at 20 mm thickness
U-value - rated value including aging, edge losses	0.35 W/(m²K) (measured value) at 20 mm thickness
Mass per area	3,5 – 5 kg/m² (for 20 mm thickness)
Compressive strength	approx. 150 kPa (at 10% compression)
Service life	extrapolated, depending on application up to 60 years
Flammability	(DIN 4102) B2

* For panels of 10 mm and 15 mm thickness a part of the side flap will rest on the panel surface.

All data provided pertains to approximate values and are not meant for the construction of specifications.

Quality is controlled through our patented va-Q-check system.

Hint