

va-Q-plus B

Product Data Sheet

Characteristics

The va-Q-plus B is our most advanced vacuum insulation panel for the construction application. va-Q-plus B can be equipped with a shiplap for gapless joints.

The core of the va-Q-plus B comprises inorganic oxides, up to 80% being fumed silica and the rest IR opacifiers and a small amount of organic fibers. The core material is noncombustible, it is sealed in a high gas barrier film and an extra black glass fibre textile for mechanical shock protection.

va-Q-plus B is now under approval process by DIBT (German Institute for Building Technology). For building applications in Germany it is possible to gain a "Bauaufsichtliche Zustimmung im Einzelfall". va-Q-plus B can only be produced in series production with more than 50 VIPs per size.



Applications

va-Q-plus B is specially developed for building insulation applications. va-Q-plus B with a drastically reduced insulation thickness and long service life opens new possibilities in building insulation. va-Q-plus B can be used for example as internal and external insulation, for wall, floor, roof and façade insulation, etc.

Building promoters, installation partners or architects should be responsible for the specific construction system. Building system application can be discussed directly with va-Q-tec.



Advantage

- Drastically reduced heat fluxes and insulation thickness
- Increased usable space
- Extra protection layer for safe installation
- No heat bridge with an shiplap system

Product data

Surface color	Black
Geometry	Rectangular shapes with flanges
Density	170 – 200 kg/m ³
Thermal conductivity	< 0.0035 W/(mK)
Assigned value by DIBT	Not yet fixed

Temperature stability	-70 °C to +70 °C
Thermal shock resistance	Not sensitive to heat & cold shock in the given temperature range
Humidity stability	0 % to 60 %
Internal gas pressure	< 5 mbar (at delivery)
Increase of gas pressure	approx. 1 mbar/year (at 20 mm thickness)
Standard dimension (L x W x T)	1100 mm x 600 mm x 12 mm, 1100 mm x 600 mm x 18 mm and 550 mm x 600 mm x 12 mm
Thickness	5 to 20 mm (1)
Size tolerance	
• 0 to 500 mm	+5 / -7 mm (2)
• 501 to 1000 mm	+5 / -10 mm (2)
• 1001 to 1750 mm	+7 / -15 mm (2)
Thickness tolerance	± 2 mm (2)
Specific heat	0.8 kJ/(kg K) (at room temperature)
U-value	0.18 W/(m²K) (at 20 mm thickness)
Mass per area	4 kg/m² (at 20 mm thickness)
Compressive strength	approx. 120 kPa (at 10 % compression)
Service life	extrapolated, depending on application up to 60 years

(1) The maximal thickness of a panel depends on the size of the panel. For very small panels the maximum thickness is 7 mm, a thickness of 35 mm is only possible for a panel size of over 1 m². Please contact us for your desired panel dimensions.

(2) Due to their special manufacturing process va-Q-plus panels are not ideally rectangular. The thickness at the edge is somewhat less than at the center. All dimensions, tolerances and insulation values refer to the insulating area from corner to corner.

Please note: There are between 10 mm and 20 mm seams at all sides of the panel. All figures are intended as a guide and should not be used for preparing specifications.

