

# va-Q-vip F

## Product Data Sheet

### Characteristics

va-Q-vip F is a vacuum insulation panel for construction applications.

The core itself is non-combustible (fire class A1), va-Q-vip F is inflammable (Construction materials class DIN 4102-B2 / EN13501-1).

va-Q-vip F is approved for general construction purposes in accordance with the approval number Z-23.11-1658 and ETA-17/0926, of the "Deutsches Institut für Bautechnik (DIBT)". By 1st July 2015 the validity of the approval was extended until 30th June 2020.

va-Q-vip F elements stand out because of their smooth edges and corners due to special "edge fold technique va-Q-seam" individual elements can therefore be joined almost seamlessly.

### Application

va-Q-vip F can be used in buildings in accordance with application areas interior applications for ceilings, walls, floors, flat roofs, top floor ceilings, exterior insulation behind paneling, insulation in wood frame construction to the standard DIN 4108-10, Table 1. Planners, installation partners or architects are responsible for the relevant specific insulation system. Application systems for buildings can also be discussed directly with va-Q-tec.

### Advantage

- Official approval for building material with assigned thermal conductivity 0.007 W/mK
- Significantly reduced heat flows and thickness
- Saves space providing more larger usable room area

### Product Data

Surface color	Silver
Outer appearance	Rectangular shape (without protruding flanges*)
Density (raw panel DIN EN 1602)	180 to 210 kg/m <sup>3</sup> for > 10 mm, 180 to 250 kg/m <sup>3</sup> for ? 10 mm

Thermal conductivity - initial value	< 0,0043 W/(mK) (at 20 mm thickness)
Thermal conductivity - rated value including aging, edge losses	0,0070 W/(mK) (at 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, temporarily 120 °C for 30 min.
Thermal shock resistance	Not sensitive 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 (at 20 mm thickness & normal room conditions)
Standard dimensions (L x W) I & II	I: 1000 mm x 600 mm, II: 500 mm x 600 mm
Special shapes	Triangle, trapezium, special shapes, corner cut, hole cut and recessed surface
Thickness	10 mm to 50 mm
Length tolerance	<ul style="list-style-type: none"> <li>• 0 to 500 mm: +2 / -4 mm</li> <li>• 501 to 1000 mm: +2 / -5 mm</li> </ul>
Thickness tolerance	± 5%
Spec. heat capacity powder plate	0.8 – 1,0 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 to 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 / E (EN13501-1)

\* For 10 mm and 15 mm thickness, if a flat edge is required, the flanges are refolded onto the main surface of panel.

Hint

All figures are intended as a guide and should not be used for preparing specifications.

Quality and gaspressure control by patented "va-Q-check" measurement device.