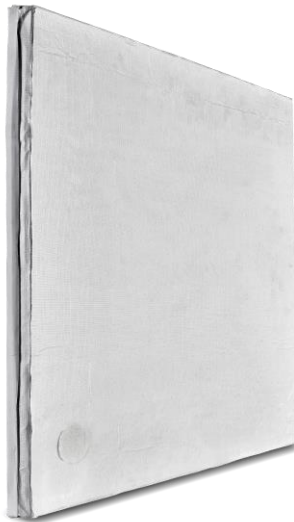


Technical Data Sheet

va-Q-vip A2



Product Description

The latest Vacuum Insulation Panel va-Q-vip A2 will be usable in buildings with A2 fire protection requirements. Due to the outstanding U-value of $0.22 \text{ W}/(\text{m}^2\cdot\text{K})$ with a thickness of 2 cm, space savings of up to 85% could be achieved compared to conventional insulation materials. The simple and dust-free mounting is carried out without harmful fibers or breakage. The fully recyclable core material is made from durable fumed silica and thermal bridges are avoided thanks to the optimized panel design with smooth edges (va-Q-seam technology). The super insulation is used in house facades, roofs, floors, ceilings, escape routes and TGA shafts, particularly.

Features

- **Enhanced usable room area due to thinner insulation material**
- **Smooth edges and no foil overlaps due to patented va-Q-seam technology**
- **Intended for fire class A2-s1, d0 according to EN 13501-1**
- **Various standard sizes on stock**
- Long lifetime due to optimized panel design with fumed silica
- 100 % quality control with the patented gas pressure measurement system (va-Q-check)
- Sustainable product (recyclable core material)

Properties*

Thermal conductivity - initial value @ 10 °C**	≤ 0.0043 W/(m·K) (at delivery) according to DIN EN 12667
Thermal conductivity - λ _D incl. aging and edge effects	0.008 W/(m·K)
Thermal conductivity ventilated - design value incl. aging and edge effects	0.020 W/(m·K)
U-Value - initial value @ 10 °C**	0.22 W/(m ² ·K) (thickness = 20 mm)
U _D -Value - incl. aging and edge effects	0.40 W/(m ² ·K) (thickness = 20 mm) 0.13 W/(m ² ·K)(thickness = 60 mm)
Internal gas pressure @ 20 °C	≤ 5 mbar (at delivery)
Density	180 – 210 kg/m ³ according to DIN EN 1602
Area density	3.5 – 5 kg/m ² (thickness = 20 mm)
Temperature resistance	-75 – 80 °C (temporary up to 120 °C)
Moisture resistance	0 – 70 % rel. humidity (until 50 °C)
Specific heat capacity	0.8 – 1.0 kJ/(kg·K) (at room temperature)
Compressive strength at 10 % compression	≥ 180 kPa according to DIN EN 826
Tensile strength perpendicular to faces	≥ 30 kPa according to DIN EN 1607
Lifetime	Depending on usage, up to 60 years
Fire class	A2-s1, d0 according to EN 13501-1
Standard sizes (l x w)	1000 mm x 600 mm 1000 mm x 300 mm 600 mm x 500 mm 600 mm x 250 mm 300 mm x 250 mm
Available standard thickness	20 mm, 30 mm, 40 mm, 50 mm
Available customized thickness	10 mm, 15 mm, 25 mm, 35 mm, 45 mm, 60 mm

*All technical specifications are preliminary as of 01/2025, subject to change pending approval. The va-Q-vip A2 is expected to be available starting in 2026. For further information, please contact va-Q-tec.

**Please note terms of service § 6 “Deviation range of the insulation value” in “Special Terms and Conditions of Sale and Delivery, Product: Vacuum Insulation Panels (VIPs)” corresponding to the valid version respectively.

Testing standards

Our va-Q-vip F panels are subjected to the according to internal test methods to confirm their exceptional properties:

- Accelerated aging tests at 50 °C, 70 % relative humidity and 80 °C (dry)
- Thermal conductivity measurements $\lambda(T)$, $\lambda(p)$ according to DIN EN 12667
- Long-time monitoring at room conditions ($p(t)$, $\lambda(t)$)
- Fire protection test according to DIN 4102-1 / EN 11925-2
- Measurement of the length- and point-related heat transition coefficient (thermal bridge effect, Ψ -value)

Measures and tolerances (VIP)

length l / width w in [mm]	thickness t in [mm]	tolerances: l/w/t in [mm]		
≤ 500	20	+2/-4	+2/-4	+1mm/-1mm
≤ 500	25 - 60			+5 %/-5 %
> 500 - 1000	20	+2/-5	+2/-5	+1mm/-1mm
> 500 - 1000	25 - 60			+5 %/-5 %

Remark: Please ask for preferred sizes and tolerances.

Thermal Resistance (VIP)

Thickness [mm]	U_D [W/m ² ·K]	R_D [m ² ·K/ W]
20	0,40	2,50
25	0,32	3,13
30	0,27	3,75
35	0,23	4,38
40	0,20	5,00
45	0,18	5,63
50	0,16	6,25
60	0,13	7,50

Legal Notes/Disclaimer

The data presented in this technical data sheet are in accordance with the present state of our knowledge.

All numbers and features proposed in this data sheet (e.g. lifetime) were determined under test conditions in the laboratory and therefore represent a nonbinding and purely scientific value. There are no guarantees associated with. Only the respectively agreed warranty period and warranty rights apply.

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Proposals for usage and applications do not constitute a guarantee, warranty or representation of suitability for the specific purpose. However the user bears the responsibility if the product is suitable and compatible for his own purposes. The user shall perform his own tests and experiments for his individual purposes and applications regarding the suitability and processing of the product described herein.

We reserve the right to change the product values and features. The respective current valid version of this technical data sheet applies and is published on our homepage.

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