Product Data Sheet

vakuVIP SP-1 & SP-2 (SP-2/E)



Description:

- Ultra-high-performance insulation thanks to low density and very low thermal conductivity
- Evacuated product core made of compressed microporous silica, opacifiers and fibres
- vakuVIP B2 with a special flame-retardant high-barrier film for use in the construction industry
- 10 mm polystyrene board on one side (SP-1) or both sides (SP-2) as a mechanical protective layer
- Optionally available with an EPS edge insert around all four sides (SP-2/E)

Benefits:

- **Protected vacuum insulation panel** for enhanced mechanical protection
- **Excellent thermal insulation** thanks to very low thermal conductivity
- **Space-saving** thanks to a thin design
- **High compressive strength**
- **Environmentally friendly and safe for health:**
    - Environmentally friendly and sustainable product thanks to 100% recyclability of the core material
    - Contains no glass fibres
- **Customisable:** Available in various sizes and shapes to meet individual requirements
- **Durability:** Resistant to ageing and moisture, with a service life of up to 50 years

Applications:

- Floor, roof and wall insulation
- Insulation of ceilings, particularly basement ceilings
- Insulation of flat roofs and roof terraces
- Use in panels for façade construction
- Floor insulation for cold stores, freezer rooms and refrigerated chambers

Dimensions and Tolerances:

Length* / Width* [mm]	***Tolerances***		***Thickness* [mm]*** ***(plus 10 mm polystyrene board on one or both sides)***	***Thickness Tolerance* [mm]***
	Length* [mm]	***Width* [mm]***		
150 - 500	+1 / -4	+1 / -4	10 - 20 21 - 50	+1 / -1 +2 / -2
500-1000	+1 / -5	+1 / -5	10 - 20 21 - 50	+1 / -1 +2 / -2
>1000	+1 / -5	+1 / -5	10 - 20 21 - 50	+1 / -1 +2 / -2

All information is provided to the best of our knowledge and belief. Errors and technical changes reserved / REV. 2 Updated 25 February 2026

Other dimensions available on request

For dimensions exceeding 1000 x 600 mm, the cores are assembled from multiple sections.

Performance Characteristics (applies to the core product vakuVIP B2):

Density	Thickness > 20 mm: 180 to max. 210 kg/m³ in accordance with DIN EN 1602 Thickness ≤ 20 mm: 180 to max. 250 k/m³ in accordance with DIN EN 1602
Weight	Approx. 4 kg/m² at a thickness of 20 mm
Compressive Strength (Compressive stress at 10% deformation)	≥ 125 kPa in accordance with DIN EN 826
Thermal Conductivity λ_{10} Value	≤ 0.0040 W/(m*K) initial value before ageing for vakuVIP at an internal pressure of < 5 mbar (value measured in testing in accordance with DIN EN 12667) 0.0070 W/(m*K) design value including ageing and edge effects for vakuVIP
Temperature Resistance	-50 to +90°C / -58 to +194°F Short-term (approx. 30 min) up to +130°C / 266°F
Service Life	Up to 50 years, depending on the application, under dry conditions (relative humidity < 60%) and at temperatures of 5°C – 30°C
Packaging	Packed in cartons, on pallets
Safety Information	According to the manufacturer, the core is not classified as hazardous under Regulation (EC) No 1272/2008.

[1] Design value (calculation value) of thermal conductivity in accordance with Z-23.11-1851

U-Value:

The core product vakuVIP B2 has German building authority approval issued by the Deutsches Institut für Bautechnik (DIBt Berlin) under number Z-23.11-1851 (dated 11 November 2013).

The calculation value for thermal conductivity for this product has been set at **0.007 W/(m*K)**.

U-Wert W/(m²K)	VAKUVIP WLG 0,007 * Dicke VIP in mm
0,70	10
0,35	20
0,23	30
0,17	40
0,14	50

Application Restrictions:

The metallised plastic composite film of the vakuVIP elements must not be damaged by drilling, cutting, milling, nailing, screwing, contact with sharp edges, etc. Damage to the film causes the internal pressure of

the panels to rise, resulting in loss of the vacuum and the excellent thermal insulation properties. Thermal conductivity after loss of vacuum is approx. 0.020 W/(m*K).

Please follow our handling and installation instructions supplied with the product.

Contact Information

Manufacturer:

Vaku-Isotherm GmbH

Schönborner Str. 37

09669 Frankenberg

Telephone: +49 (0) 37206 – 5787 - 10

E-Mail: zentrale@vaku-isotherm.de

Website: www.vaku-isotherm.de