Technical data sheet

vakuVIP Sandwich panel



Description:

- ultra high-performance insulation due to low density and very low thermal conductivity
- vacuumed core material made from pressed microporous silica, opacifiers and fibres
- vakuVIP B2/EU with special flame-retardant high-barrier film for use in the construction sector
- customized cover layer combination of glass and/or aluminum and an EPS liner (other cover layer combinations available upon request)

Advantages:

- **Covered vacuum insulation panel** for higher mechanical protection
- **Very good thermal insulation** due to very low thermal conductivity
- **Space-saving** due to thin design
- **High compressive strength**
- **Environmentally friendly and safe for health**:
  - Ecological and sustainable product due to 100% recyclability of the core material
  - Contains no toxic or dangerous substances
  - Contains no glass fibers
- **Customizable**: available in various sizes and shapes to meet individual requirements
- **Durability**: resistant to aging and moisture
- **Life cycle of up to 50 years**

Applications:

- Sandwich panels in window and door construction
- Use in glass facades and conservatory construction
- Sandwich panels in mullion-transom constructions

Dimensions and Tolerances:

Length* / Width* [mm]	***Tolerances***		***Thickness* [mm]*** ***(plus cover layer combination)***	***Tolerance Thickness* [mm]***
	Length* [mm]	***Width* [mm]***		
150 – 1.200	+1 / -1	+1 / -1	10 - 50	+1 / -1

**other dimensions and tolerances available on request.*

For dimensions larger than 1000 x 600 mm, the core products are assembled from multiple parts.

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

Density	Thickness > 20 mm: 180 to max. 210 kg/m³ according to DIN EN 1602 Thickness ≤ 20 mm: 180 to max. 250 k/m³ according to DIN EN 1602
Weight	approx. 4 kg/m² at 20 mm thickness
Compressive strength **(Compressive stress at 10 % strain)**	≥ 125 kPa according to DIN EN 826
Thermal conductivity λ_{10}-value	≤ 0,0040 W/(m*K) initial value before aging at an internal pressure under 5 mbar (measurement value according to DIN EN 12667)
Temperature resistance	-50 to +90°C / -58 to +194°F short term up to +120°C / 248°F for about 30 min
Service life	under dry conditions (relative humidity < 60%) and temperatures between 5°C – 30°C, up to 50 years depending on the application
Delivery form	packed in cartons on pallets
Safety Instructions	According to the manufacturer, the core is not a hazardous material according to Directive 91/155/EEC. It does not release any dangerous decomposition products and, to the best of current knowledge, poses no health risk to humans.

	VIP thickness [mm]	U-Wert [W/(m²K)]
U-Value (for vakuVIP B2/EU)	10	0,70
	20	0,35
	30	0,23
	40	0,17
	50	0,14
	60	0,12

Application restrictions:

The metallized barrier film of the vakuVIP elements must not be damaged by drilling, cutting, milling, nailing, screwing, or impacting sharp edges, etc. Damage to the film leads to an increase in the internal pressure of the panels, resulting in a loss of vacuum and their excellent thermal insulation properties. The thermal conductivity in the ventilated condition is around 0.020 W/(m*K).

Please refer to our processing instructions included with the product upon delivery.

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Contact Information

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