Technical data sheet

vakuVIP B2 /

vakuVIP EU



Description:

vakuVIP B2 – approved by the building authority DIBt Berlin under licence number Z-23.11-1851

vakuVIP EU – approved by the building authority DIBt Berin under licence number ETA-23/0203

- Ultra high-performance insulation through low density and minimal thermal conductivity
- Vacuumed product core made from compressed microporous silica, opacifiers, and fibers
- Incombustible core material – fire protection class A1
- Special flame retardant cover-film for the construction industry
- “Blauer Engel” eco-label for interior insulation

Advantages:

- **Excellent thermal insulation** due to minimal thermal conductivity
- **Space-saving** due to thin design
- **Fibre-free:** Manufactured without the use of glass fibres
- **Sustainabbility**
  - Core material that is fully recyclable and contributes to reusability in the sense of a circular economy
- **Adaptable:** Available in various sizes and shapes for individual requirements
- **Durability:** Resistant to ageing and moisture, life cycle of up to 50 years

Applications:

- Floor, roof and wall-insulation
- Insulation of flat roofs and roof terraces
- Used as insulation in facade construction
- Insulation inserts in doors and fillings
- Insulation material in shipping and storage containers
- Floor insulation for chilling and refrigerating rooms

In areas of the construction industry that require building authority approval, such as in the application areas DAD, DAA, DZ, DI, DEO, WAB, WAA, WH, WTR and WI according to standard DIN 4108-10, Table 1.

- DAD = External insulation of roof or ceiling, weatherproof, under covering
- DAA = External insulation of roof or ceiling, weatherproof, under waterproofing
- DZ = Between-rafter insulation *licensed by „Blauer Engel“
- DI = Internal insulation on the underside of the ceiling or roof, suspended ceiling *licensed by „Blauer Engel“
- DEO = Internal insulation under screed without sound insulation requirements *licensed by „Blauer Engel“
- WAB = External insulation of the wall behind cladding
- WAA = External insulation of the wall behind waterproofing
- WH = Insulation of timber frame and timber panel construction*licensed by „Blauer Engel“
- WTR = Insulation of room partition walls *licensed by „Blauer Engel"

Dimensions anf Tolerances:

Length / Width* [mm]*	*Tolerances*		*Thickness* [mm]*	Tolerance Thickness* [mm]
	Length [mm]*	*Width* [mm]*		
150 - 500	+1 / -4	+1 / -4	10 - 20 21 - 60	+1 / -1 +2 / -2
500-1000	+1 / -5	+1 / -5	10 - 20 21 - 60	+1 / -1 +2 / -2
>1000	+1 / -5	+1 / -5	10 - 20 21 - 60	+1 / -1 +2 / -2

** deviating dimensions available on request*

For dimensions over 1000 x 600 mm, the cores are composed of multiple parts

Performance Characteristics:

Density	Thickness > 20 mm: 180 to max. 210 kg/m³ according to DIN EN 1602 Thickness ≤ 20 mm: 180 to max. 250 kg/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) 0,0070 W/(m*k) design value including ageing and edge effects for vakuVIP B2
Temperature resistance	-50 to +90°C / -58 to +194°F briefly approx. 30 min. up to +130°C / 266°F
Fire class	E according to DIN EN 13501-1
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 substance according to Regulation (EC) 1272/2008.

	Thickness VIP	**U-Value [W/(m²K)]** vakuVIP B2 – WLG 0,0070*[1]
U-Value	10	0,70
	20	0,35
	30	0,23
	40	0,17
	50	0,14
	60	0,12

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

Application Restrictions:

The composite foil of the vakuVIP elements must not be damaged by drilling, cutting, milling, nailing, screwing, or impacting sharp edges, etc. Damage to the foil will result in an increase in the internal pressure of the panels, leading to the loss of vacuum and their excellent thermal insulation properties. The thermal conductivity in the vented state is approximately 0.020 W/(m*K).

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

Contact Information

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