



# FOAMGLAS® PERINSUL HL (High load)

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FOAMGLAS® PERINSUL HL is a very high density speciality product used to eliminate structural thermal bridging. The upper and the lower surface of the insulation are bitumen coated and laminated with glass reinforced fleece, compatible with mortar. The upper side is green.

**Form of delivery (content per package)**

thickness x length [mm]	65 x 450 mm		
width [mm]	100	140	215
units	25	17	12
linear running metre [m]	11.25	7.65	5.40

  

thickness x length [mm]	100 x 450 mm		
width [mm]	100	140	215
units	15	10	7
linear running metre [m]	6.75	4.50	3.15

Other dimensions are available on request.

## General FOAMGLAS® Cellular Glass Insulation characteristics

- Description : FOAMGLAS® Insulation is manufactured from specially graded recycled glass (≥ 60%) and natural raw materials which are available in abundant supply (sand, dolomite, lime...). The insulation is totally inorganic, contains no ozone depleting propellants, flame resistant additives or binders. Without VOC or other volatile substances.
- Reaction to fire (EN 13501-1) : Core material complying with Euroclass A1, non-combustible, no toxic fumes
- Service temperature limits : from -265°C to +430°C
- Water vapour resistance (EN ISO 10456) :  $\mu = \infty$
- Hygroscopicity : zero
- Capillarity : zero
- Melting point (cf DIN 4102-17) : >1000 C°
- Thermal expansion coefficient (EN 13471) :  $9 \times 10^{-6} / K$
- Specific heat (EN ISO 10456) : 1000 J/(kg.K)

FOAMGLAS® characteristics





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## 1. Product characteristics conforming to EN 13167<sup>1)</sup> and ETA<sup>2)</sup>

Density ( $\pm 15\%$ ) (EN 1602)	: 200 kg/m <sup>3</sup>
Thickness (EN 823) $\pm 2$ mm	: 65, 100 mm
Length (EN 822) $\pm 2$ mm	: 450 mm
Width (EN 822) $\pm 2$ mm	: 100, 140, 215 mm
Thermal conductivity (EN ISO 10456)	: $\lambda_D \leq 0.058$ W/(m·K)
Reaction to fire (EN 13501-1)	: Euroclass E (Core material Euroclass A1)
Point load (EN 12430)	: PL $\leq 1.0$ mm
Compressive strength (EN 826 annex A) <sup>1)</sup>	: CS $\geq 2.75$ MPa

<sup>1)</sup> As EN 13167 is limited to a compressive strength of 1.6 N/mm<sup>2</sup>, an ETA has been applied for, which allows the CE marking for higher compressive strength. Also the requirements of EN 1996-1-1 (Eurocode 'Masonry') for ETA test procedures are included.

<sup>2)</sup> ETA-013/0163, European Technical Approval.

## 2. Additional product data

Thermal diffusivity at 0°C	: $3.5 \times 10^{-7}$ m <sup>2</sup> /sec
$\lambda_D$ -value and mean $t^\circ$ range (EN ISO 13787)	: + 35 °C $\leq 0.054$ W/(m/K)
BRE Green Guide Rating	: C
Compressive strength CS-mean	CS <sub>mean</sub> $\geq 2.9$ MPa
per unit capped with mortar (EN 772-1) <sup>3)</sup>	: <b>KZ</b> : limestone: 1.80 MPa
Compressive strength of masonry $f_k$ <sup>3)</sup>	<b>P</b> : full ceramic stone: 1.60 MPa
	<b>SB</b> : ceramic fast block: 1.50 MPa
	E = 1500 MN/m <sup>2</sup>
Flexural modulus of elasticity	:

<sup>3)</sup> Tested in conformity with EN 1996-1-1 (Eurocode 6 'Masonry') and some test specimen in conformity with EN-1052-1 in MPa or N/mm<sup>2</sup>.

## 3. Applications

- Floor-wall base element to eliminate structural thermal bridging
- Parapet walls