

FOAMGLAS® HLB CELLULAR GLASS INSULATION PRODUCT DATA SHEET



MAIN PHYSICAL PROPERTIES OF FOAMGLAS® HLB CELLULAR GLASS INSULATION

The following is a summary of the acceptance values for lot average compressive strength and thermal conductivity values as defined in the Quality Assurance Specifications.

DENSITY AND COMPRESSIVE STRENGTH:

Grade of FOAMGLAS® HLB insulation	Nominal Lot Average Density		Compressive Strength (Tested According to ASTM C240/C165, EN 826 Method A)					
			Average			Lower Specification Limit*		
	kg/m ³	pcf	N/mm ²	psi	kg/cm ²	N/mm ²	psi	kg/cm ²
HLB 800	120	7.5	0.80	116	8.16	0.55	80	5.6
HLB 1000	130	8.1	1.00	145	10.19	0.69	100	7.0
HLB 1200	140	8.7	1.20	174	12.23	0.83	120	8.4
HLB 1400	150	9.4	1.40	203	14.27	0.97	140	9.8
HLB 1600	160	10.0	1.60	232	16.31	1.10	160	11.2

Note: 0.8 N/mm² = 800 kPa

THERMAL CONDUCTIVITY:

Grade of FOAMGLAS® HLB insulation	At 10°C in W/(m·K)		At 75°F in Btu·in/(hr·ft ² ·°F)	
	Maximum Lot Average Value	Highest Single Measured Value	Maximum Lot Average Value	Highest Single Measured Value
HLB 800	0.043	0.044	0.314	0.321
HLB 1000	0.044	0.046	0.321	0.334
HLB 1200	0.046	0.048	0.334	0.348
HLB 1400	0.047	0.049	0.341	0.355
HLB 1600	0.048	0.050	0.348	0.362

Tested According to ASTM C177, C518, EN 12667 EN 12939

Lower specification limit with AQL = 1.0% per ISO 3951

COMPOSITION:	Soda-lime silicate glass – inorganic with no fibers or binders
TEMPERATURE LIMITS:	-260°C min. 430°C max. (-436°F min. 806°F max.)
SOFTENING POINT:	≈750°C (1382°F)
WATER ABSORPTION:	0.2%, Only moisture retained is that adhering to surface cells after immersion. No absorption into the cellular glass.
HYGROSCOPICITY:	No increase in weight at 90% Relative Humidity

ASTM C 240,
EN 1609, EN12087

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WATER VAPOR PERMEABILITY:	0.0 ng/pa·s·m ² (0.00 perm-in)	ASTM E 96 (Water Method), EN 12086, EN ISO 10456
CAPILLARITY:	None	
COMBUSTIBILITY & REACTION TO FIRE:	Noncombustible - will not burn Flame Spread 0 Smoke Development 0	ASTM E136, E84, EN ISO 1182 (Class A1)
DIMENSIONAL STABILITY:	Excellent—does not shrink, swell or warp	EN 1604 (DS 70/90)
LINEAR COEFFICIENT OF THERMAL EXPANSION:	9.0 x 10 ⁻⁶ /K 25°C to 300°C 5.0 x 10 ⁻⁶ /°F 75°F to 575°F	ASTM E228, EN 13471

AVAILABLE SIZES:*

Grade of Insulation	Length and Width		Standard Available Thickness	
	millimeters	inches	millimeters	inches
HLB 800	600 x 450	24 x 18	50, 75, 100, 125, 150	2, 3, 4, 5, 6
HLB 1000	600 x 450	24 x 18	50, 75, 100, 125, 150	2, 3, 4, 5, 6
HLB 1200	600 x 450	24 x 18	50, 75, 100, 125, 150	2, 3, 4, 5, 6
HLB 1400	600 x 450	24 x 18	50, 75, 100, 125, 150	2, 3, 4, 5, 6
HLB 1600	600 x 450	24 x 18	50, 75, 100, 125, 150	2, 3, 4, 5, 6

*Additional sizes and grades available by special order.

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