



FOAMGLAS®

Building

Pittsburgh Corning

Green competence and energy efficiency

FOAMGLAS® INSULATION FOR COMMERCIAL AND INDUSTRIAL ROOFING SYSTEMS

FOAMGLAS® insulation is available in flat or tapered block. Readyboard is the fast track and easy to install solution for steel deck.

Insulation with outstanding properties

FOAMGLAS® insulation is the only absolute closed celled material. Manufactured from crushed glass and carbon, it is totally inorganic and offers outstanding physical properties for a lifetime of high performance buildings. FOAMGLAS® can be made from recycling glass up to 66% content. FOAMGLAS® systems safeguard the environment. From cradle to grave, they do not contribute to environmental pollution. It is a safe product regarding the principles of building healthy.

FOAMGLAS® is the only insulation material that is totally impervious to any form of moisture, water and vapor-proof.

The fire protecting insulation will not burn or give toxic fumes or smoke.

It is dimensionally stable, has high compressive strength.

It is rot, insect, vermin and acid proof. It will not support the growth of mold, fungi or micro-organisms.

FOAMGLAS® retains its original insulation value for the life of the building.

Sustainable Insulation Systems

The different application techniques in roofing, floors/foundations or inside insulation are all low risk and high performance.

PHYSICAL AND THERMAL PROPERTIES OF FOAMGLAS® T4 + INSULATION				
PHYSICAL PROPERTIES	SI	ENGLISH	ASTM STANDARD	EUROPEAN STANDARD
Absorption of Moisture (% by Volume)	0.2%	0.2%	C 240	EN 1609
	Only moisture retained is that adhering to surface cells after immersion			
Water-Vapor Permeability	0.00 perm-cm	0.00 perm inch	E96 Wet Cup, Procedure B	EN ISO 10456
Acid Resistance	Impervious to common acids and their fumes except hydrofluoric acid			
Capillarity	None	None		EN 1609
Combustibility	Noncombustible, will not burn.		E 136	EN ISO 1182* (Class A1)
Composition	Soda-lime silicate glass — inorganic with no fibers or binders.			
Compressive Strength Average for Standard Material (+/-10%)	600 kPa	90 psi	C 165 C 240 C 552	EN 826
	Strength for flat surfaces capped with hot asphalt. For curved surfaces and pipe supports, contact PCC.			
Density, Average	120 kg/m ³	7.5 lb/ft ³	C 303	
Dimensional Stability	Excellent — does not shrink, swell or warp.			EN 1604
Flexural Strength, Block Average	480 kPa	70 psi	C 203 C 240	
Hygroscopicity	No increase in weight at 90% relative humidity.			EN 12089
Linear Coefficient of Thermal Expansion 25°C to 300°C (75°F to 575°F)	9.0 x 10 ⁻⁶ /°K	5.0 x 10 ⁻⁶ /°F	E 228	EN 13571
Maximum Service Temperature	480°C	+900°F		EN 14706
Modulus of Elasticity, Approx.	900 MPa	1.3 x 10 ⁵ psi	C 623	
Thermal Conductivity	W/mK	Btu-in/hr•ft ² •°F**	C 177 C 518	EN 12667 EN 12939
	0.039 @ 0°C	0.29 @ 75 °F		
	0.040 @ 10°C	0.28 @ 50 °F		
Specific Heat	0.84 kJ/kg•°K	0.20 Btu/lb•°F		
Thermal Diffusivity	4.2 x 10 ⁻⁷ m ² /sec	0.016 ft ² /hr		

Notes: Measurements were collected using ASTM guidelines and, unless otherwise specified, properties were collected at 24°C (75°F). Properties may vary with temperature. The measurements listed in the table are average or typical values recommended for design purposes, and are not intended as specification or limit values.

* Melting point: >1000 °c (1832 °F)
 ** Thermal resistance: R-value 3.44/inch

FOAMGLAS® ROOF INSULATIONS

FOAMGLAS® insulation systems are stable under all conditions of use and protect the owner from unexpected expenditures for heating or expensive replacement of the insulation or repair. Long-term roofing system performance when used in conjunction with built-up or modified bitumen membranes and installed in accordance with PC specifications.



FOAMGLAS® is installed in hot bitumen on a continuous decking. The slabs are laid staggered with butted and bitumen filled joints. Quality of joint sealing easy to see. Install the roof membrane (BUR, Single-Ply or modified) in accordance with the membrane manufacturer's recommendations.



The upper surface of FOAMGLAS® Ready-Board is covered with a bitumen coating. A thin polypropylene film, which will burn off when a torch is applied. FOAMGLAS® insulation is ideal for roof over high moisture or high humidity - generating facilities.

Styles and Patterns:

- Flat Block — FOAMGLAS® block insulation is available 12" x 18" x 1 1/2" (305 x 457 x 38mm) thick, as well as 18" x 24" (457 x 610mm) from 2" to 6" thick (50 to 152mm) (1/2" – 13mm increments).
- Tapered Block — Tapered FOAMGLAS® insulation blocks are available in 18" x 24" (457 x 610mm) size tapered on the 24" (610mm) side with tapers of 1/8", 1/4" or 1/2" per foot (1:96, 1:48, 1:24). Minimum thickness is 1 1/2" (38mm). Blocks are identified for slope direction and position.
- Readyboard – FOAMGLAS® Readyboard is available in 2' x 4' (actual 23.6" x 47.25") (600 X 1200 mm). Top face is made up of a layer of bitumen (asphalt) capped by a thin protective layer of polypropylene which is torched or melted off during the installation process. Lower facing consists of a bitumen (asphalt) adhered white fiber glass fleece.

For complete data on FOAMGLAS® Insulation Systems, please visit our Web site at www.foamglasinsulation.com, or contact Pittsburgh Corning

Pittsburgh Corning USA (Corporate Headquarters)
800 Presque Isle Drive
Pittsburgh, PA 15239
Tel: 1-724-327-6100
Fax: 1-724-387-3807

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STANDARDS, CERTIFICATIONS* AND APPROVALS

FOAMGLAS® Roof Insulation can be certified to conform to the requirements of ASTM C 552, "Specification for Cellular Glass Thermal Insulation." FOAMGLAS® insulation is classified for the following:

Underwriting Laboratories, Inc.

- Surface Burning Characteristics — Flame Spread: 0; Smoke Developed: 0.
- Fire Resistance Characteristics — Roof/Ceiling Assemblies
Design No. P227 — 1 1/2 hr
Design No. P259 — 1 1/2 hr
Design No. P508 — 1 hr
Design No. P701 — 1 hr
Design No. P717 — 1-2 hrs
Design No. P801 — 1-2 hrs
Design No. P819 — 1-2 hrs

- Acceptable for use in Construction No. 1 and No. 2 (Metal Deck Assemblies, Fire Classified). See latest issue of UL Building Materials Directory.

Factory Mutual

- Steel Deck Construction — Acceptable for Class 1 construction.
- Cementitious Decks — FOAMGLAS® block insulation meets I-60 and I-90 Wind Uplift Classifications when secured with hot asphalt or INSTA-STIK® adhesive.
- Exposed Interior Insulation — Automatic sprinkler protection may not be required. The insulation and its recommended installation method meet the requirements as Class 1 material of low fire hazard in non-combustible occupancies not requiring automatic sprinkler protection when applied to non-combustible substrates. See latest Factory Mutual Approval Guide.

Warranty

Pittsburgh Corning carries 20-year warranty covering resistance to moisture absorption, retention of original insulation efficiency, and retention of compressive strength.

***Written request for certificate of compliance must accompany order.**



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