# FOAMGLAS® F CELLULAR GLASS

## RIGID FOAM INSULATION

Owens Corning® FOAMGLAS® F cellular glass insulation is a closed cell, high-performance, rigid foam board specifically designed for building and roofing applications. It provides a unique combination of properties that offer an alternative to other types of building insulation. For use where extremely high loads and equipment vibration are present.

### Features

- High Compressive Strength
- Non-Combustible[1]
- Waterproof[2]
- Vapor Impermeable
- Dimensionally Stable
- Insect and Pest Resistant
- Chemically Resistant
- Zero Deflection

1 Unfaced only.
2 Per ASTM D5385/C1306.

### Standards, Code Compliance

- UL (Underwriters Laboratories) Roof Deck Constructions, tested in accordance with UL 1256
- FM (Factory Mutual) Class 1 Roof Decks
- ASTM E108 Fire Classified Assemblies
- ASTM E119 Fire Resistance Rated Roof Assemblies
- UL and FM Wind Uplift Rated Assemblies
- F cellular glass material meets or exceeds all physical & thermal property requirements of ASTM C1902 Type IV

### Physical Properties[3]

| PROPERTY | TEST METHOD | VALUE |
|---|---|---|
| Composition | – | Inorganic; soda lime glass |
| Density, minimum pcf (kg/m$^3$) | ASTM C303 | 8.5 (136) |
| Service Temperature, °F (°C) | – | -445 to 806 (-265 to 430) no load |
| Water Absorption, maximum vol % | ASTM C240 | 0.1% |
| Water Vapor Permeability, maximum perm-in (ng/Pa-s-m) | ASTM E96 | 0.005 (.007) |
| Mold/Mildew Resistance | ASTM C1338 | Pass |
| Corrosion Resistance | ASTM C1617 | Pass (steel, less than DI water) |
| Hydrostatic Resistance, minimum equivalent water height in feet (meters) | ASTM D5385/ C1306 | 34.5 (10.5) |
| Coefficient of Linear Thermal Expansion, maximum in/in/°F (mm/mm/°C) | ASTM E228 | 5.0 x 10$^{-6}$ (9.0 x 10$^{-6}$) |
| Dimensional Stability,[4] %, maximum<br>@ 158°F/97% R.H.<br>@ -40°F/ambient R.H.<br>@ 200°F/ambient R.H. | ASTM D2126 | <br>1.0<br>1.0<br>1.0 |
| Compressive Strength (capped), minimum psi (kPa) | ASTM C165 Procedure A/ ASTM C240 | 232 (1600) |
| Flexural Strength, psi (kPa), minimum | ASTM C203 | 79.8 (550) |
| Modulus of Elasticity, ksi (MPa), Approximate (v = 0.25)<br>Perpendicular<br>Parallel | ASTM C623 | <br>217 (1496)<br>223 (1538) |
| Combustibility[1] | ASTM E136 | Non-combustible |
| Surface Burning Characteristics,[1,5] maximum<br>Flame Spread Index<br>Smoke Developed Index | ASTM E84 | <br>Unfaced 0, Faced NR[1]<br>Unfaced 0, Faced NR[1] |
| Thermal Resistance[6] per inch @ 75°F (24°C) mean temperature[2], Hr-ft$^2$-°F/BTU (m$^2$-°C/W) | ASTM C518/ ASTM C177 | 2.8 (0.49) |

3 Properties shown are representative values for 1-inch-thick material unless otherwise specified. Cellular glass may exhibit different physical properties based upon thickness. Certain physical properties are listed by minimum and maximum values per ASTM C1902. For details on specific test methods, please contact Owens Corning at 1-800-GET-PINK.
4 Maximum change in any dimension.
5 These laboratory tests are not intended to describe the hazards under actual fire conditions. Verify compliance with all required applicable fire assemblies.
6 R means the resistance to heat flow; the higher the value, the greater the insulation power. This insulation must be installed properly to get the market R-value. Follow the manufacturer's instructions carefully. The U.S. FTC requires the R-value of home insulation to be measured at 75°F mean temperature. R-value claims should always be compared at the same mean temperature. Because rigid foam plastic insulation products are not all aged in accordance with the same standards, it is useful to publish comparison R-value data.

## Technical Information

FOAMGLAS® cellular glass insulation is an insulating material to be installed beneath a protective roof membrane in roof applications designed to meet required construction and service-loading conditions as determined by a licensed engineer or architect of record. See Owens Corning FOAMGLAS® Commercial Roofing Design Guide.

## Availability[7]

| | THICKNESS[8] | WIDTHS | LENGTHS |
|---|---|---|---|
| Block | 1.58" (40 mm)–7.09" (180 mm) | 17.71" (450 mm) | 23.62" (600 mm) |
| Board | 1.58" (40 mm–7.09" (180 mm) | 23.62" (600 mm) | 47.24" (1,200 mm) |

7 FOAMGLAS® F is only available from Europe and availability may be limited.
8 Thicknesses are available in 0.39-inch (10 mm) increments.

## Environmental and Sustainability

Owens Corning is a worldwide leader in building material systems, insulation, and composite solutions, delivering a broad range of high-quality products and services. Owens Corning is committed to driving sustainability by delivering solutions, transforming markets, and enhancing lives. More information can be found at www.owenscorning.com.

## Certifications and Sustainable Features

- Certified by natureplus Institute SCE to contain a minimum of 60% recycled glass (external production waste, building site waste, post-consumer waste) — Certificate 0406-1101-101-1
- Environmental Product Declaration (EPD) has been certified by IBU (Institut Bauen und Umwelt e.V.) — Certificate EPD-PCE-20150041-IBA1-EN
- Unfaced product meets the requirements of CA CDPH SM V1.2 for VOC emissions and formaldehyde; French VOC Emissions Class A+



**PITTSBURGH CORNING, LLC**
ONE OWENS CORNING PARKWAY
TOLEDO, OH 43659 USA

**1-800-GET-PINK®**
**www.owenscorning.com/foamglas**

Pub. 10024057-C. April 2023. 