

Foamfrax® RG Insulation

Foamfrax® RG (Refractory Grade) Insulation is an extension of the Foamfrax Insulation product line. Foamfrax RG Insulation is a combination of refractory ceramic fiber or alkaline earth silicate (AES) fiber, refractory cement, and a high-temperature binder solution combined in the field using the proprietary Foamfrax process. The resultant product form is a high-density, ceramic fiber or soluble fiber based material engineered for refractory backup lining applications and aggressive environments. Foamfrax RG can be gunned easily around a variety of refractory anchor systems and air sets within 24 hours. Traditional refractory materials (castables, plastic and brick) may be installed over Foamfrax RG once the product air sets.

Isofoam® RG Insulation is similar to Foamfrax RG Insulation, but utilizes Unifrax's patented Isofrax® (AES) fiber chemistry as the fiber component of the finished product.

Foamfrax RG Insulation and Isofoam RG Insulation may be applied in ducts, stacks and furnace hearths, in units operating at temperatures below 1800°F (982°C).

Like Foamfrax RG, Foamfrax RG Plus combines refractory ceramic fiber, refractory cement, and a high-temperature binder solution that can be combined in the field using the unique Foamfrax process. The resultant product form, which is rated to 2300°F, is a high-density, ceramic fiber based material ideally suited for low-density working linings. Foamfrax RG Plus can be gunned easily around a variety of refractory anchor systems and air sets within 24 hours. For full thickness applications of this material, all established installation guidelines for Foamfrax full thickness linings must be adhered to. This includes choosing the proper anchoring system for the application, troweling the hot face smooth, and scoring on a maximum of 2' x 2' centers.



Principal Applications

- Backup behind brick, plastic, refractory, and castable
- Annealing furnace bases
- Duct, flue, and stack linings
- Heat treat furnace, kiln car decks
- Incinerator floors, process heaters
- Ground flares

Typical Product Properties

| | Foamfrax® RG | Foamfrax® RG Plus | Isofoam® RG |
|--------------------------------------|--|----------------------------------|--|
| Appearance | Brown Fibrous/ Cement Mixture | Brown Fibrous/ Cement Mixture | Brown Fibrous/ Cement Mixture |
| Recommended Operating Temperature | 1800°F (982°C) | 2300°F (1260°C) | 1800°F (982°C) |
| Dry Density (PCF) | 22-28 | 22-28 | 22-28 |
| Fired Density (PCF) | | | |
| 1800°F/24 hrs. | 23-30 | – | 23-30 |
| 2300°F/24 hrs. | – | 23-30 | – |
| Dry MOR (PSI) | 40-60 | 25-35 | 25-35 |
| Fired MOR (PSI) | | | |
| 1800°F/24 hrs. | 10 | – | 10 |
| 2300°F/24 hrs. | – | 10 | – |
| Cold Crush Strength (PSI) | 13 | 13 | 13 |
| LOI (%) 1800°F/24 hrs. | 6-9 | – | 6-9 |
| LOI (%) 2300°F/24 hrs. | – | 6-9 | – |
| Linear Shrinkage 1800°F/24 hrs. | 3% | – | 3% |
| Linear Shrinkage 2300°F/24 hrs. | – | 3% | – |
| Velocity Rating (Feet per Second) | 150 | 150 | 150 |
| Noise Reduction Coefficient (NRC) 2" | 0.90 | 0.90 | 0.90 |
| Sound Absorption Average (SAA) 2" | 0.90 | 0.90 | 0.90 |
| Set Time | 24 Hours | 24 Hours | 24 Hours |
| Shelf Life – Months (Unopened) | Foamfrax RG Binder, Foamfrax B Binder, and Foamfrax RG Plus Cement – 6 months | | Foamfrax RG Binder, Foamfrax B Binder, and Foamfrax RG Cement – 6 months |
| Packaging | Foamfrax RG Fiber – 40 lb Bags Foamfrax RG/Foamfrax RG Plus Cement – 94 lb Bags Foamfrax RG Binder – 5 Gallon Pails, 55 Gallon Drums Foamfrax B Binder – 5 Gallon Pails | | Isofoam RG Fiber – 40 lb Bags Foamfrax RG Cement – 94 lb Bags Foamfrax RG Binder – 5 Gallon Pails, 55 Gallon Drums Foamfrax B Binder – 5 Gallon Pails |

Recommended Operating Temperature as per ASTM C411 and C447

Linear Shrinkage as per ASTM C356

Modulus of Rupture (MOR) and Cold Crush results as per ASTM C133

Noise Reduction Coefficient (NRC) and Sound Absorption Average (SAA) based on 2" thickness as per ASTM C423

Data are average results of tests conducted under standard procedures and are subject to variation. Results should not be used for specification purposes.

Refer to the product Safety Data Sheet (SDS) for recommended work practices and other product safety information.

For additional information about product performance or to identify the recommended product for your application, please contact the Unifrax Application Engineering Group at 716-768-6460.

