



High Temperature  
Solutions For  
Global Markets



## Foamfrax & Isofoam

*Foamfrax<sup>®</sup> Refractory Ceramic  
Fiber & Isofoam<sup>™</sup> Soluble Fiber  
Gunnable Advanced Foam / Fiber  
High Temperature Insulation  
Materials*

**Foamfrax<sup>®</sup> & Isofoam<sup>™</sup> Gunnable High Temperature  
Insulation Solutions For Global Markets**  
Foamfrax<sup>®</sup> & Isofoam<sup>™</sup> are registered products of Unifrax  
On the web at: <http://www.unifrax.com>

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### Foamfrax Refractory Ceramic Fiber (RCF) & Isofoam Soluble Fiber High Temperature Insulation Products

Unifrax I, LLC has manufactured Fiberfrax [high temperature insulation](#) products since 1942. Industry requirements for a monolithic fiber-based high temperature insulation solution, that can be rapidly installed over complex surface geometries, led to development of Foamfrax and Isofoam High Temperature Insulation materials.

Foamfrax and Isofoam High Temperature Insulation products are advanced gunnable foam/fiber materials for monolithic furnace lining and other thermal insulation applications. They offer exceptional energy savings and installation speed for upgrades of existing fiber linings, lining over existing refractory, full thickness linings, and furnace lining patches or refits.

Unifrax I, LLC offers a range of advanced foam/fiber materials to fit a variety of high temperature insulation requirements:

- Foamfrax High Temperature Insulation available in 5 forms based on 3 refractory ceramic fiber grades
- Isofoam (2300°F/1260°C Isofrax Biosoluble Fiber) High Temperature Insulation

Composite high temperature insulation furnace lining systems may be easily designed and installed by combining different foam/fiber grades in layers



### Major Constituents Of Foamfrax & Isofoam High Temperature Insulation

Both Foamfrax and Isofoam High Temperature Insulation materials, are 3-component monolithic insulation systems, comprised of:

- specially conditioned bulk refractory ceramic fibers or soluble fibers
- an inorganic binder
- an organic foaming binder

Foamfrax High Temperature Insulation is formulated with [Fiberfrax refractory ceramic fiber](#) (RCF), and recommended continuous use temperature varies up to 2800°F (1538°C), depending upon the particular fiber grade deployed:

- Foamfrax RG (Refractory Grade - 1800°F/982°C RCF) Insulation
- Foamfrax Grade I Fiber (2300°F/1260°C RCF) High Temperature Insulation
- Foamfrax Grade II Fiber (2600°F/1427°C RCF) High Temperature Insulation
- Foamfrax Grade III Fiber (3000°F/1649°C RCF) High Temperature Insulation

Isofoam High Temperature Insulation is formulated with [Isofrax](#) soluble fibers, in order to comply with European in-vitro solubility regulations for glass fiber high temperature insulation products. Isofoam High Temperature Insulation is recommended for continuous use to 2300°F (1260°C).

[Fiberfrax Foamfrax MSDS Documents:](#)





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- [Fiberfrax Foamfrax Grade I Bulk Fiber MSDS](#)
- [Fiberfrax Foamfrax Grade II Bulk Fiber MSDS](#)
- [Fiberfrax Foamfrax Grade III Bulk Fiber MSDS](#)
- [Fiberfrax Foamfrax A Binder MSDS](#)
- [Fiberfrax Foamfrax RG High Temperature Insulation MSDS](#)
- [Fiberfrax Foamfrax RG High Temperature Insulation MSDS](#)
- [Fiberfrax Foamfrax HD High Temperature Insulation MSDS](#)

### Installation Of Foamfrax & Isofoam Advanced Gunnable High Temperature Insulation

The **Foamfrax / Isofoam** High Temperature Insulation installation process combines the bulk fiber material with the inorganic and organic binders in a patented mixing mechanism creating a homogeneous foam/fiber mixture. The installation machinery propels this mixture through a feed hose and nozzle, and the high temperature insulation material is then simply and efficiently gunned onto the target surface.



The proprietary **Foamfrax / Isofoam** binder system and patented installation method completely encapsulate the fibers with the foaming binder, minimizing airborne fiber levels during installation. The interlocking network of fibers provides a strong, uniform monolithic structure having excellent thermal insulating properties, very low heat storage, and excellent resistance to thermal shock.

For More Installation Information – visit the ['Foamfrax Case Studies' page](#) to find a library of Foamfrax & Isofoam Application / Installation Case Study Documents. Download the Foamfrax Machine Guide and Foamfrax High Temperature Insulation FAQ sheets (below), or e-mail [Foamfrax/Isofoam Customer Support](#)

- [Foamfrax High Temperature Insulation Installation FAQ Sheet 1](#)
- [Foamfrax High Temperature Insulation Installation FAQ Sheet 2](#)

### Foamfrax & Isofoam High Temperature Insulation Applications

**Foamfrax & Isofoam** High Temperature Insulation products are characterized by, low thermal conductivity, low heat storage, excellent thermal shock resistance, light weight, and superior corrosion resistance. The excellent thermal stability, and the low-density form of Foamfrax and Isofoam products, make them ideal for a wide range of high temperature insulation applications.

Foamfrax High Temperature Insulation is widely applied in power generation, industrial chemical processing, petroleum refining, and various other industries including ferrous & non-ferrous metals processing, and ceramic/glass processing.

**Foamfrax & Isofoam** High Temperature Insulation materials are used to insulate metal, refractory, or ceramic fiber surfaces at temperatures up to 2800°F (1538°C). Foamfrax and Isofoam mix can be installed at rates in excess of 1000 board feet/hr, and these high temperature insulation products are used in a wide range of furnace lining and other insulating applications.

A principal application of **Foamfrax / Isofoam** High Temperature Insulation is to upgrade the efficiency of partially deteriorated furnace linings. A rapid application of several inches of Foamfrax or Isofoam High Temperature Insulation onto the existing hot face surface extends the furnace lining life and improves thermal efficiency.

**Foamfrax / Isofoam** High Temperature Insulation can also be installed as a full-thickness furnace lining system, by using metallic anchors, which are embedded within the Foamfrax or Isofoam layer, to retain the high temperature insulation furnace lining.



Steel - Ladle Pre-Heat Stand



Steel - Batch Forge Furnace



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For More Foamfrax Application Information see the ['Foamfrax Case Studies' page](#) for a library of downloadable case study documents, describing the application / installation of Foamfrax and Isofoam High Temperature Insulation in a range of industrial processes. Also download the Product Information Sheets (below), or if you have specific questions, e-mail [Foamfrax Customer Support](#)

- Foamfrax Grade I, Grade II, & Isofoam [Product Information Sheet](#)
- Foamfrax Grade III [Product Information Sheet](#)
- Foamfrax RG [Product Information Sheet](#)
- Foamfrax HD [Product Information Sheet](#)



AI - Soaking Pit Fan Housing

### Fiberfrax Specialty Coatings & Mixes



Fiberfrax coatings and mixes are shipped wet - ready for application in a variety of high temperature insulation and sealing applications. Fiberfrax coating and mix products are compatible for high temperature use with Foamfrax and Isofrax advanced High Temperature Insulation materials.

- Fiberfrax Specialty Products [Product Information Sheet](#)
- Fiberfrax FC-25 Tamping Mix [MSDS](#)
- Fiberfrax Pumpable BG Insulating Mix [MSDS](#)
- Fiberfrax Pumpable GS Insulating Mix [MSDS](#)
- Fiberfrax QF Cements [MSDS](#)
- Fiberfrax Topcoat 2600 Insulating Mix [MSDS](#)
- Fiberfrax Topcoat M [MSDS](#)

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### More Unifrax High Temperature Insulation Information

<a href="#">Unifrax</a>	<a href="#">High Temperature Insulation</a>	<a href="#">Refractory Ceramic Fiber</a>	<a href="#">Fyrewrap</a>
<a href="#">Fiberfrax</a>	<a href="#">Insulfrax</a>	<a href="#">Isofrax</a>	<a href="#">Foamfrax/Isofoam</a>
<a href="#">Fiberfrax MSDS List</a>	<a href="#">Insulfrax MSDS List</a>	<a href="#">Isofrax MSDS List</a>	<a href="#">Foamfrax/Isofoam Applications</a>

Press Release: ['Foamfrax / Isofoam High Temperature Insulation - Foamfrax / Isofoam Technical Resource Online'](#)

**Contact Unifrax Today to find out more about using Foamfrax Advanced Monolithic High Temperature Insulation in your applications**