

Buster Fiber High Temperature Alumina Ceramic Bulk Fiber

The Cost Effective Option for High Temperature Insulation

Available in Two Standard Bulk Densities

- **Buster F (5 Pounds per Cubic Foot)**
- **Buster F-10 (10 Pounds per Cubic Foot)**

Buster F Features

- Temperature Rating to as High as 1800 °C
- High Alpha Content
- 100% Fibers - No Filler
- Low Thermal Conductivity (K)
- Excellent Thermal Shock Resistance
- Designed for Rapid Cycling
- Extreme High Temperature Stability
- Highly Refractory
- Low Heat Storage
- Lightweight
- Usable in Multiple Atmospheres

The Zircar Fibrous Ceramics Advantage

Low Mass,
Low Heat Storage &
Low Thermoconductivity
means
High Thermal Shock Resistance,
High Insulation Performance,
Higher System Efficiency &
Lower Energy Costs



Low Thermal Conductivity... High Purity... Low Thermal Mass...

Thermally stable high alpha alumina content ceramic fiber for applications to 1800 °C.

Product Information

Zircar Aluminum Oxide Ceramic Fiber Type Buster Fiber is thermally stable, high alpha alumina polycrystalline ceramic fiber. Rated for temperatures to 1800 °C, they do not contain any binders or fillers that will off-gas on heat treatment.

Buster Fibers are 3-4 microns in diameter composed of 97% Al₂O₃ & 3% SiO₂. The silica stabilizes by inhibiting the phase changes that make pure alumina brittle. Buster Fibers are stable in vacuum, oxidizing and reducing atmospheres as well as resistant to attack in most aggressive chemical environments. The fibers also have low thermal conductivity, low mass and immunity to thermal shock.

Buster Fibers are excellent reinforcement materials to add to Buster Cement and other ceramic coatings. They are useful as loose fill insulation or as packing material in furnace cavities where heat leakage might be a problem, especially around sight tubes, ports, expansion joints, masonry cracks, or any under insulated area encroaching on the hot face.

Buster fibers are used by **Zircar** to manufacture our aluminum oxide vacuum formed product lines, Buster A and Buster M. Buster Fiber will produce a light weight rigid shape with a uniform density when vacuum formed from a water slurry.

Buster F has a nominal density of 5 lb/ft³. Buster F has the longest fiber length at 2-4 inches and will vacuum form to a density of 10 - 15 lb/ft³ in water.

Buster F-10 has a nominal density of 10 lb/ft³ and shorter fiber lengths of 1/8 - 1/4 inches. Buster F-10 will vacuum form to 20 - 25 lb/ft³.

For more information,
phone: (845) 651-3040
email: sales@zircarzirconia.com
website: www.zircarzirconia.com

Properties & Characteristics

Properties	Buster F	Buster F-10
Bulk Density, lb/ft ³ (g/cm ³)	5 (0.08)	10 (0.16)
Fiber Density, lb/ft ³ (g/cm ³)	212 (3.4)	212 (3.4)
Melting Point, °C (°F)	2038 (3700)	2038 (3700)
Maximum Use Temperature, °C (°F)*	1700 (3092)	1700 (3092)
Shrinkage %, 1 hour at 1538 °C (2800 °F)	2	2
Approximate Fiber Length, mm (in.)	50-100 (2-4)	3-6 (1/8-1/4)
Mean Fiber Diameter, microns	3.5	3.5
Chemical Composition (nominal)		
Oxide	Wt%	
Al ₂ O ₃	97	
SiO ₂	3	
Organics	0	
Alpha Alumina	>50	

* Maximum use temperature is dependent on variables such as stresses, both thermal and chemical, and the chemical environment that the material experiences.

Applications

FILLS CAVITIES

Can be placed into cavities as loose fill insulation or used as furnace packing.

REINFORCEMENT

It can be added to Buster Cement and used as a coating or as a filler for holes, bonding of matched surfaces, and repairing cracks and openings in furnace walls composed of alumina insulation.

THERMAL INSULATION

Buster Fiber can be used as thermal insulation in many industrial furnace applications. It is ideal for applications where an insulation exhibiting low shrinkage and thermal shock is required.

FORMS RIGID SHAPES

Can be vacuum formed into rigid shapes or as an additive in ceramic fiber vacuum formed products to improve refractoriness.

Product Samples



FREE SAMPLES

Call: 845-651-3040

email: sales@zircarzirconia.com

Product Type	Item #
Buster F	SAMPLE-GF1
Buster F-10	SAMPLE-GF2



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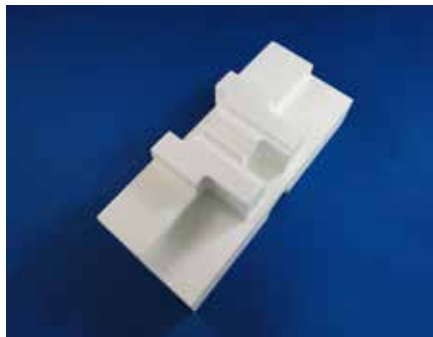
Custom Design Quotations

Contact Us For A Quotation For Your Custom Part

Call: 845-651-3040
email: sales@zircarzirconia.com

Zircar manufactures zirconia and alumina fiber insulation boards and machines custom shapes to your design specifications. Our capabilities include:

- 3D CNC Machining
- Layered Configurations
- Lap Joined Boards and Cylinders
- Diamond Wire Splitting of Cylinders



Zircar welcomes our customers to take advantage of our machining department's expertise for all your custom machining needs.

Standard Product Sizes & Ordering

Please contact our Sales Department for pricing and availability.

To Place an Order

Call: 845-651-3040
email: sales@zircarzirconia.com

Buster Fiber

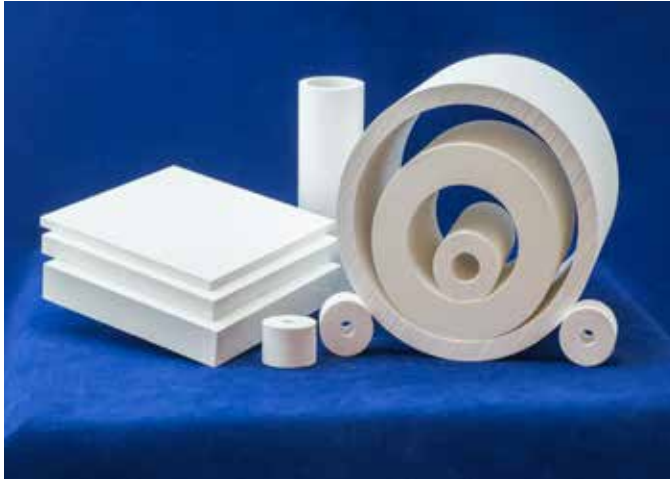
Size	Item Number	
	Buster F	Buster F-10
1 Kg	GF001	GF003
10 Kg	GF002	



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Other Interesting Products



Buster fiber boards and cylinders with a choice of alumina or mullite bonds and densities from 15 PCF to 45 PCF.

Zircar Zirconia Bulk Fibers are available in three different types, all having useful properties up to 2200 °C.



Buster Cement is formulated specifically for bonding Buster boards and cylinders to themselves or to back-up thermal insulations such as porous firebrick and alumino-silicate fiber boards. Buster Cement can be mixed with Buster Fiber to repair insulation cracks.



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