



Zircar Zirconia, Inc.
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ALUMINA BULK FIBERS TYPE BusterF



Alumina Bulk Fiber Type BusterF

FEATURES

- Available in Two Different Forms
- Low Thermal Conductivity
- Highly Refractory
- Low Heat Storage
- Extreme High Temperature Stability
- 97% Pure Alumina
- Lightweight
- Available "Off the Shelf"

Alumina Bulk Fibers Type **BusterF** are Hi-Alpha alumina fibers available in two different forms, both having useful properties up to 1700°C. These polycrystalline fibers can be vacuum formed into rigid shapes, placed into cavities as loose fill insulation, or added to ceramic bodies and coatings for reinforcement. They are differentiated by fiber length but share the same fiber diameter and calcined chemical composition. Typically these fibers are 3 to 4 microns in diameter.

BusterF fibers exhibit low thermal conductivity, low thermal mass and immunity to thermal shock. A minor addition of silica modifies the fiber's microcrystalline structure and acts as a grain growth inhibitor and prevents embrittlement that usually occurs in pure alumina after extended use at elevated temperatures. **BusterF** fibers resist attack in aggressive chemical environments due to its high purity & refractory nature. It is stable in vacuum, inert or reducing atmospheres.

BusterF fibers yield a uniform body of 0.16 - 0.24 gm/cm³ (10-15 pcf) density, when vacuum formed from a water slurry. **BusterF-10** fibers will produce higher density vacuum formed boards and cylinders. Silica, alumina and aluminum phosphate binders can be used to form rigid refractory thermal insulation products.

BusterF fiber is useful as insulation packing in furnace spaces, around furnace sight tubes & ports and fill in expansion joints and masonry cracks.

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Product Data
Bulletin #G-B
August 2004
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PROPERTIES & CHARACTERISTICS

	BusterF	BusterF-10
Nominal Composition, Wt%		
Al ₂ O ₃	97	97
SiO ₂	3	3
Organics	0	0
Alpha Alumina, Wt%	>50	>50
Melting Point, °C (°F)	2038 (3700)	2038 (3700)
Maximum Use Temperature, °C (°F)	1700 (3092)	1700 (3092)
Linear Shrinkage, % (1 hr at 1538°C (2800°F))	2	2
Bulk Shipping Density, g/cc (pcf)	0.08 (5)	0.10 (6)
Fiber Density, g/cc (pcf)	3.4 (212)	3.4 (212)
Approximate Fiber Length, mm (in.)	50-100 (2-4)	3-6 (1/8 - 1/4)
Mean Fiber Diameter, microns	3.5	3.5

ORDERING INFORMATION

Type **BusterF** Bulk is available in two standard product forms, which are listed in the table below with their ordering item number. Please contact our Sales Department for pricing and availability.

Standard Sizes	Item Number
BusterF, BULK FIBER, 1 kg	GF001
BusterF, BULK FIBER, 10 kg	GF002
BusterF-10, BULK FIBER, 1 kg	GF003
BusterF-10, BULK FIBER, 10 kg	GF004

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