



Zircar Zirconia, Inc.  
"Manufacturers of the original ZIRCAR products" ©

## Alumina Boards, Discs & Cylinders TYPE Buster



### FEATURES

- 1600°C, 1700°C & 1800°C Rated Versions
- Alumina or Mullite Bonded
- High Strength
- Low Thermal Conductivity
- 100% Fibers & Binder - No Fillers
- Excellent Machinability
- Non-RCF Composition

Zircar alumina insulation Type **Buster** is a rigid, fibrous ceramic material produced by vacuum forming alumina fibers with either a high purity alumina binder, as in **BusterA** or with silica binders in **BusterM** that form a more thermal shock resistant mullite bond. **BusterM2** is a mullite bonded 1800°C version that exhibits complete dimensional stability to 1700°C. Both **BusterA** and **BusterM** chemistry is offered in a range of custom and standard densities. Standard board densities are 15, 30, 35 and 45 pounds per cubic foot.

**Buster** is available in boards, cylinders and custom machined parts. All **Buster** boards are pre-fired for organic-free use. Their fine grain quality and uniform binder distribution enables precision machining. All these features make **Buster** an ideal insulation material for hot face insulation, setters and trays in rapid heat electric furnaces and other types of thermal process systems.

High purity silica is the binder in **BusterM**. Silica's strong bond gives **BusterM** excellent high temperature strength and dimensional stability. **BusterA** has a high purity alumina bond making it well suited to use in high vacuum and reducing atmosphere applications where silica cannot be tolerated, such as in bright annealing furnaces with H<sub>2</sub> atmospheres. They both have high electrical resistivity at elevated temperatures allowing them to be used in direct contact with many different resistance heating elements.

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### PROPERTIES & CHARACTERISTICS

	M-45	M2-35	M-35	A-30	M-15
Main Feature	High Strength	1800C Premium	Hot Strength	Pure Alumina	Low K
Use Limit °C **	1650	1800	1725	1600	1650
Density - pcf	45	39	35	30	15
Porosity %	70	80	83	85	93
Alumina Content, weight%	85	85	85	97+	85
Melting Point °C	1870	1870	1870	1870	1870
Shrinkage 1 hr @ 1700°C	2%	-0.1%	0.6%	1.4%	4%
Specific Heat BTU/lbF	0.25	0.25	0.25	0.25	0.25
Thermal Expansion / °C	$5.0 \times 10^{-6}$	$5.0 \times 10^{-6}$	$5.0 \times 10^{-6}$	$7.5 \times 10^{-6}$	$5.0 \times 10^{-6}$
Tensile Strength, PSI	1300	460	658	250	210
Compressive Strength, PSI @ 2% compression ll to thickness	600	266	250	78	30

### Availability and Ordering Information

Zircar Alumina Insulation Type **Buster** is available in standard sized Boards, Discs, and Cylinders, which are listed on the following page with their ordering item number. Please contact our Sales Department for Pricing and Availability.

- **To order** one of our standard sizes, specify the Quantity you wish to order, Item Number and Product Type and Size.  
For example: 3 ea., Item GX001, BusterM-35, 13" x 13" x 1"
- Our forming process and machining capabilities allow for a wide variety of **custom parts** to be made. Please contact us with your special requirements and we'll be happy to provide you with a quotation.

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## Alumina Boards, Discs & Cylinders TYPE Buster

<b>BusterM-35 Standard Sizes</b>	
Board, 13" x 13" x 0.25" TK	GX011
Board, 13" x 13" x 0.50" TK	GX012
Board, 13" x 13" x 0.75" TK	GX013
Board, 13" x 13" x 1.00" TK	GX001
Board, 13" x 13" x 1.50" TK	GX003
Board, 13" x 13" x 1.75" TK	GX017
Board, 13" x 13" x 2.00" TK	GX076
<b>BusterM2-35 Standard Sizes</b>	
Board, 12.5" x 12.5" x 0.25" TK	
Board, 12.5" x 12.5" x 0.50" TK	
Board, 12.5" x 12.5" x 0.75" TK	
Board, 12.5" x 12.5" x 1.00" TK	GX004
Board, 12.5" x 12.5" x 1.50" TK	GX005
<b>BusterA-30 Standard Sizes</b>	
Board, 13" x 13" x 0.50" TK	GX090
Board, 13" x 13" x 1.00" TK	GX068
Board, 13" x 13" x 2.00" TK	GX092

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