

## Zircar Zirconia ALK-15 Alumina Knit Textile Insulation

Category : Ceramic , Machinable Ceramic , Oxide , Aluminum Oxide

### Material Notes:

Alumina (Al<sub>2</sub>O<sub>3</sub>) has excellent thermal shock resistance, high dimensional stability and good chemical inertness, which makes our alumina fiber products ideal for fast firing cycles up to 1700°C. Our alumina fibers and textiles are made by the same unique Zircar process used for manufacturing yttria-stabilized zirconia cloths and felts. This process yields a high purity alumina fiber with only trace amounts of silica, making it more stable in hydrogen environments than the more commonly found sol-gel alumina fibers that have 3% silica. Our high purity alumina fiber and textiles are offered in six different standard product forms bulk fiber Type ALBF, two felts Types ALF-50 and ALF-100 and three types of knit cloth Types ALK-15, ALW-15 and ALW-30. Features: Excellent Thermal Shock Resistance 99% Pure Alumina Trace Level of Silica (0.09 wt%) Dimensional Stability in Hydrogen Low Thermal Conductivity No Outgassing Six Different Product Formats

Offered Available 'Off the Shelf' Application Information: Alumina fiber textiles are used as insulation for glass melting furnaces. Alumina bulk fiber, Type ALBF, is used as bulk fill insulation. Alumina fiber textiles are used as insulation for fiber optic furnaces. Alumina fiber textiles are used in SOFC and PEM type fuel cells as gaskets. Alumina fiber cloth is used as insulation in differential scanning calorimeters (DSC's). Information provided by Zircar Zirconia.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Zircar-Zirconia-ALK-15-Alumina-Knit-Textile-Insulation.php](http://www.lookpolymers.com/polymer_Zircar-Zirconia-ALK-15-Alumina-Knit-Textile-Insulation.php)

Physical Properties	Metric	English	Comments
Bulk Density	0.490 g/cc	0.0177 lb/in <sup>3</sup>	
Loss On Ignition	1.40 % @Temperature 950 °C, Time 3600 sec	1.40 % @Temperature 1740 °F, Time 1.00 hour	
Porosity	88 %	88 %	Bulk
Outgassing - Total Mass Loss	0.00 %	0.00 %	

Thermal Properties	Metric	English	Comments
Melting Point	2015 °C	3659 °F	
Shrinkage	7.00 % @Temperature 1650 °C, Time 3600 sec	7.00 % @Temperature 3000 °F, Time 1.00 hour	

Component Elements Properties	Metric	English	Comments
Al <sub>2</sub> O <sub>3</sub>	>= 99 %	>= 99 %	
CaO	0.060 %	0.060 %	
SiO <sub>2</sub>	0.090 %	0.090 %	
ZrO <sub>2</sub> +Y <sub>2</sub> O <sub>3</sub>			

Component Elements Properties	0.42 % Metric	0.42 % English	Comments
Descriptive Properties	Value		Comments
Tensile Strength per Unit Width	116 gram/cm width		

**Contact Songhan Plastic Technology Co.,Ltd.**

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