

## **Zircar Zirconia ZOG Single Crystal Zirconia Grog Insulation**

Category: Ceramic, Machinable Ceramic, Oxide, Zirconium Oxide

## **Material Notes:**

Zircar Zirconia Single Crystal Grog Type ZOG is composed of small (0.6 to 2.4mm) single crystals of zirconia having a monoclinic structure. These "skull melted" crystallites exhibit virtually no particle breakdown during thermal cycling and provide dust-free performance. Type ZOG is useful at temperatures up to 2400°C under oxidizing conditions with no sintering or particle breakdown and minimal sticking. Zircar Zirconia Single Crystal Grog Type ZOG was developed for RF (Radio Frequency) induction furnaces operating above 2000°C. These furnaces are typically used in fiber optic draw towers and crystal growing applications where high purity, low electrical conductivity and dust-free performance at extreme temperatures are essential. Zirconia Single Crystal Grog Type ZOG is free flowing, therefore conforming to irregular configurations to fill small and intricate areas. Type ZOG contains no organic binders and will produce no smoke or odor when heated and is available in two particle size ranges. Type ZOG-1 has a Tyler mesh size of -8 to +14 (2.4mm to 1.2mm)Type ZOG-2 has a Tyler mesh size of -10 to +28 (1.7mm to 0.6mm). Features: High Purity ZrO2 Single Crystal (99%+)High Temperature Stability to 2400°CLow Thermal ConductivityTwo Particle Size Ranges are OfferedExcellent Thermal Shock ResistanceNo OutgassingVirtually Dust Free PerformanceAvailable 'Off the Shelf'Application Information: ZOG Grog is used as insulation and crucible support in crystal growing furnaces. ZOG Grog is used as insulation for glass melting and fiber optic draw furnaces. ZOG Grog is used as bulk fill insulation. ZOG Grog is used as ultra high temperature insulation for advanced energy systems. Information provided by Zircar Zirconia.

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_Zircar-Zirconia-ZOG-Single-Crystal-Zirconia-Grog-Insulation.php

Physical Properties	Metric	English	Comments
Bulk Density	2.75 g/cc	0.0994 lb/in³	
Outgassing - Total Mass Loss	0.00 %	0.00 %	

Thermal Properties	Metric	English	Comments
Melting Point	2715 °C	4919 °F	
Maximum Service Temperature, Air	2400 °C	4350 °F	
Shrinkage	0.000 %	0.000 %	
	@Temperature 2400 °C, Time 1800 sec	@Temperature 4350 °F, Time 0.500 hour	

Component Elements Properties	Metric	English	Comments
Hf02	1.0 - 2.0 %	1.0 - 2.0 %	
SiO2	0.15 %	0.15 %	
TiO2	0.15 %	0.15 %	
ZrO2	97 - 98 %	97 - 98 %	



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

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