

## Zircar Refractory Composites RS-1200 Refractory Sheet

Category : Ceramic , Oxide , Aluminum Oxide

### Material Notes:

ZIRCAR Refractory Sheet Type RS-1200 is a high strength composite designed for use as thermo-mechanical and electrical insulation in applications with temperatures as high as 1300°C(2372°F). RS-1200 is a combination of strong reinforcing fibers tightly bound in an alumina ceramic matrix. RS-1200 is completely inorganic and contains no asbestos or RCF fibers. RS-1200 exhibits greater refractoriness and homogeneity than other reinforced alumina matrix composite products and can be readily machined to tight tolerances with conventional carbide tooling. Information provided by ZIRCAR Refractory Composites, Inc. (ZRCI)

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Zircar-Refractory-Composites-RS-1200-Refractory-Sheet.php](http://www.lookpolymers.com/polymer_Zircar-Refractory-Composites-RS-1200-Refractory-Sheet.php)

Physical Properties	Metric	English	Comments
Density	2.16 g/cc	0.0780 lb/in <sup>3</sup>	
Loss On Ignition	1.00 - 2.00 % @Temperature 982 °C	1.00 - 2.00 % @Temperature 1800 °F	
Porosity	31 %	31 %	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	85 - 90	85 - 90	
Modulus of Rupture	0.0310 GPa	4.50 ksi	parallel to thickness
Compressive Yield Strength	55.0 MPa	7980 psi	at 2% compression parallel to thickness

Thermal Properties	Metric	English	Comments
CTE, linear	9.00 μm/m-°C @Temperature 20.0 - 400 °C	5.00 μin/in-°F @Temperature 68.0 - 752 °F	
Specific Heat Capacity	1.172 J/g-°C @Temperature 600 °C	0.2801 BTU/lb-°F @Temperature 1110 °F	
Thermal Conductivity	0.620 W/m-K @Temperature 200 °C	4.30 BTU-in/hr-ft <sup>2</sup> -°F @Temperature 392 °F	parallel to thickness
	0.650 W/m-K @Temperature 400 °C	4.51 BTU-in/hr-ft <sup>2</sup> -°F @Temperature 752 °F	parallel to thickness
	0.660 W/m-K @Temperature 600 °C	4.58 BTU-in/hr-ft <sup>2</sup> -°F @Temperature 1110 °F	parallel to thickness

Thermal Properties	Metric U.680 W/m-K	English 4.2 BTU-in/hr-ft <sup>2</sup> -°F	Comments
	@Temperature 1000 °C	@Temperature 1830 °F	parallel to thickness
Melting Point	1500 °C	2730 °F	
Maximum Service Temperature, Air	1300 °C	2370 °F	
Flammability Test	0.00	0.00	Nil
Shrinkage	0.700 % @Temperature 1100 °C, Time 86400 sec	0.700 % @Temperature 2010 °F, Time 24.0 hour	perpendicular to thickness
	1.00 % @Temperature 1300 °C, Time 86400 sec	1.00 % @Temperature 2370 °F, Time 24.0 hour	perpendicular to thickness

Component Elements Properties	Metric	English	Comments
Al2O3	82 %	82 %	
Other	6.0 %	6.0 %	
SiO2	12 %	12 %	

Electrical Properties	Metric	English	Comments
Volume Resistivity	7.20e+11 ohm-cm	7.20e+11 ohm-cm	
Surface Resistance	2.30e+11 ohm	2.30e+11 ohm	
Dielectric Strength	2.80 kV/mm	71.0 kV/in	
Dielectric Breakdown	7300 V	7300 V	1/8 in. thick
Arc Resistance	>= 420 sec	>= 420 sec	

Descriptive Properties	Value	Comments
Color	White	

## Contact Songhan Plastic Technology Co.,Ltd.

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