

SILICONE BONDED MICA PAPER BOARDS FOR HIGH TEMPERATURE APPLICATION

Temperature Index 500 Deg C

Product

RD offers high quality silicone bonded mica paper sheets/boards for high temperature application and suited for a temperature index of at least 500 Deg C.

Application

Used as insulation board in Dynamic Braking Resistors (DBR) equipment for traction application and has very good heat resistance besides other high temperature uses.

Technical Data

Properties	Values	Testing Method
Physical Properties		
Sheet Size	1200 X 1000 mm	
Thickness	Upto 30 mm	
Thickness Tolerance	+/- 5%	
Color	Natural	
Density	2.1 to 2.3 gms/cc	
Mica Content	90 +/- 2%	
Binder	8-10%	
Weight Loss at 550 Deg C/4 hrs	1.5% max.	
Water Absorption after 24 hrs	0.5% max.	
Mechanical Properties		
Flexural Strength (at 27 +/- 2 Deg C)	150 N/sq. mm min.	IS 1998
Tensile Strength	120 N/sq. mm min.	IS 1998
Compressive Strength (at 27 +/- 2 Deg C)	300 N/sq. mm min.	IS 1998
Electrical Properties		
Dielectric Strength (at 27 ± 2°C)	20 kV/mm min.	IS 2584
Surface Resistivity (at 27 ± 2°C)	10 (to the power of 13) Ohms Min.	BS 903-C1
Volume Resistivity		BS 903-C1

- at 27 ± 2°C	10 (to the power of 13) Ohms Min.	
- at 400 °C	10 (to the power of 12) Ohms Min.	
- at 500 °C	10 (to the power of 9) Ohms Min.	
Comparative Tracking Index	600 Volts Min.	IS2824

Thermal Properties

Continuous Operating Temperature	: >500 °C
Peak Operating Temperature	: 700 °C
Specific Heat	: >850 J/kg °C
Flame Resistance	: Completely incombustible as per UL94V.0
Thermal Conductivity	
- Perpendicular to the plane of plate	: ≤0.3 W/m °K
- Along the plane of plate	: ≤0.3 W/m °K
Thermal Expansion	
- Perpendicular to the plane of plate	: 10 (to the power of -6) /K 100
- Along the plane of plate	: 10 (to the power of -6) /K 10

Machinability

Material has good machinability properties and does not get delaminated during milling and drilling operation.

Packing

Individual sheets are wrapped in moisture proof polythene and are packed in strong wooden boxes to avoid any damage in transit or storage.

Disclaimer: The above is a typical product data sheet for reference purpose only and not intended for specification purpose.