

Rigid Mica Plate

R-5660-H series of Rigid Mica Plate are mica laminates designed for providing outstanding electrical insulation at high temperature, which consist of approximately 90 % muscovite(or phlogopite) and 10% high temperature resistant silicone resin.

R-5660-H series of Rigid Mica Plate are mainly used in domestic application (such as clothes irons, hair dryers, toaster, kettles, cooking appliances, microwave oven, air heater, etc.)and industrial heating applications (such as wound heater elements, cylindrical resistance heaters, metallurgy industry for intermediate frequency furnace, arc furnace, etc.).

Availability

Thickness: 0.1mm, 0.15mm, 0.2mm, 0.25mm, 0.3mm, 5mm.

Size: Sheets of 1000 x 600 mm, 1000 x 1200 mm, 1000 x 2400mm(The sheet size can be adjusted by cutting.);

Note: The product less than 2.0mm thickness can be formed by stamping. The products larger than 2.0mm shall be processed by turning, milling, drilling and other processes.

Properties

Relative to general insulation material, the prominent advantages of the rigid mica plate are:

Excellent insulating properties at high temperature: At 500-1000℃ operating ambient temperature, the voltage breakdown resistance is 15kV/mm

Excellent mechanical properties: Good strength and hardness

Stable chemical properties: Excellent resistance to acid, alkali and oil and good aging resistance

Excellent environmental protection performance: The product contains no asbestos, and has less smoke and odors, even smokeless and odorless when heating

Excellent processability: The product can be processed into various shapes without delamination.

Performance Parameter

Item	Unit	R-5660-H1	R-5660-H3	Test Procedure
Mica Paper		Muscovite	Phlogopite	
Mica Content	%	≈92	≈92	IEC 60371-2
Bond Content	%	≈8	≈8	IEC 60371-2
Density	g/cm ³	1.8-2.45	1.8-2.45	IEC 60371-2
Heat Resistance	Continuous Services	℃	500	700
	Intermittent Services	℃	800	1000
Heat Loss at 500℃	%	< 1	< 1	IEC 60371-2
Heat Loss at 700℃	%	< 2	< 2	IEC 60371-2
Flexural Strength	MPa	> 120	> 120	GB/T 5019.2
Water Absorption	%	< 1	< 1	GB/T 5019.2
Dielectric Strength	kV/mm	> 20	> 20	IEC 60243-1
Insulation Resistance at 23℃	Ω·cm	10 ¹⁷	10 ¹⁷	IEC 60243-1
Insulation Resistance at 500℃	Ω·cm	10 ¹²	10 ¹²	IEC 60243-1
Flame Resistance		UL94 V-0	UL94 V-0	UL94
Smoking test	s	<4	<4	in house

