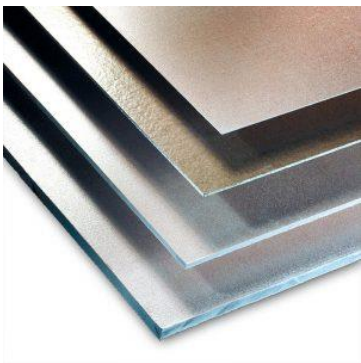


MICA-FP

Rigid Muscovite Mica Sheet



MICA Fire Protection is used as a fire break most commonly in electric vehicle battery packs. It is often used in the manufacturing of commutators. MICA Fire Protection consists of a rigid muscovite mica sheet impregnated with an epoxy resin. This epoxy mica material is sanded to reach precise thickness with low tolerance. MICA Fire Protection is 100% free of toxicity.

Features

- Mica content: 85-90%
- Silicon binder: 10-15%
- Dielectric strength: >20 kV/mm
- Can be bonded to metal cooling plates

Availability

- Available in standard thicknesses of 4mm, 5mm, 6mm, 10mm and 20mm
- Standard sheet sizes are 1200x1000mm

Typical Physical Properties

Property (unit)	Test Method	MICA - FP
Colour	Visual	Gray
Thicknesses (mm)	-	5
Density (g/cm ³)	IEC 60371-2	2.2 – 2.3
Heat Resistance (°C): - Continuous - Intermittent	-	- 500 800
Insulation Resistance: - @ 23°C - @ 550°C	IEC 6093	- 10 ¹⁶ Ohms/mm 10 ⁹ Ohms/mm
Flammability	UL94	V-0

Benefits

- Heat Resistance: 500°C
- Dielectric strength: > 20 kV/mm
- Can be converted into custom shape parts including holes, slots, etc.

Recommended Uses

- Used as a fire break inside electric vehicle and other energy storage systems
- Used in the construction of electric motors
- Resists open flame propagation

Electrical and Mechanical Information

Property (unit)	Test Method	MICA - FP
Composition Muscovite MICA (%)	IEC 60371-2	85-90
Composition Silicone Binder (%)	IEC 60371-2	10-15
Flexural Strength (N/mm ²)	ISO 178	230
Water Absorption (%)	-	< 1
Dielectric Strength (KV/mm)	IEC 60243 at 20°C	> 20
Tensile Strength (N/mm ²)	ISO 527	150
Thermal Expansion: - Perpendicular - Parallel	-	100 x 10 ⁻⁶ /K 10 x 10 ⁻⁶ /K



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This material is often used in these industries:

