

Epotherm™

Composition

Epotherm™ consists of several layers of muscovite mica paper impregnated with epoxy binder having excellent mechanical, thermal, and electrical properties.

Applications

- Insulation of high temperature heated platens and moulds in hydraulic and forging presses.
- Arc chutes barrier insulation in circuit breakers.
- Low temperature insulation of electrode arm in arc and ladle furnaces.
- Low temperature insulation between coil and crucible in induction furnaces.
- As terminal boards in heat treatment furnaces.
- Various insulation forms in short circuit switches used in chemical and fertilizer industries.

Product Data

Property		Unit	Value
PHYSICAL	Thickness Range	mm	> 0.5 to 100
	Thickness Tolerance	mm	± 10 % of nominal thickness
	Density	kg / dm ³	2.1 to 2.5
	Mica Content	%	85 ± 2
	Water absorption after 24 hr immersion	%	< 0. 25
MECHANICAL	Weight Loss, 493 K	%	1.5 max.
	Flexural Strength	N/mm ²	> 350
	Tensile Strength	N/mm ²	> 225
	Impact Strength - Edgewise	kg-cm	11 min.
	Compressive Strength	N/ mm ²	> 300
	Machinability		Very good by sanding, milling or drilling. HSS or tungsten carbide tools should be used because of abrasiveness of mica.
THERMAL	Continuous Operating Temperature	°C	> 200
	Thermal Conductivity	W / m K	0.12 min.

ELECTRICAL	Dielectric Strength	kV / mm	> 20
	Arc Resistance	s	> 175
	Surface Resistivity after exposing sample to 423 K / 1 hr	Ω	> 10^{11}
	Volume Resistivity	Ω -cm	> 10^{13}
	Dissipation Factor		0.035 min
	Dielectric Constant		5.0 min
	Comparative Tracking Index	V	> 600

The values shown above are based on tests carried out in our laboratory. The results may vary under different application parameters.

Available size of sheets

- Sheet size: 2000 mm x 1000 & 1000 mm x 700 mm
- Sheet thickness: upto 100 mm
- Machined and fabricated components of various shapes and sizes