

DIFF INSULATE

TechnicalData: DIFFCOR/CR/06-18

Product Description:

DIFF INSULATE a two component solvent free, high polymeric resin system especially designed for electrical insulation. DIFF INSULATE is filled with highly dielectric insulating material and forms non porous film with excellent adhesion to metallic, non metallic surface and offers a good combination of mechanical, thermal and electrical insulating properties. Prevents Flashovers, Downtime & Equipment Damages.

Application:

DIFF INSULATE is used primarily as insulation of aluminum bus bars, copper, bus bars and other steel barrier materials of electrical distributing system. Naked Conductor, Bus Support Insulators, Electrical Insulator Ends, Metal supports Structures, Bushing & potheads FRP Barrier Boards.

Ideal for Power Distribution, Railways.

Also an excellent alternative to Di –electric floor matting in Sub-Station/HT panels.

Antiskid property can be achieved by addition of special fillers. Temperature ranges 20-150°C.

Technology	Epoxy Electrical Insulation
Chemical Type	Epoxy
Appearance(Base)	Green
Appearance(Activator)	Light yellow
Appearance(Mixed)	Green
Components	Two component-requires mixing
Mix Ratio, by volume Resin: Hardener	3:1
Mix Ratio, by weight Resin: Hardener	3:1
Cure	Room temperature cure
Application	Electrical Insulation surface coating

TYPICAL PROPERTIES OF UNCURED MATERIAL

Base:

Viscosity: liquid
Weight per liter: 1.25 kg/liter

Hardener:

Viscosity: liquid
Weight per liter: 1.05kg/liter

Mixed:

Viscosity Semisolid/paste

Coverage 0.66 m² @ 1mm thick/1kg

TYPICAL CURING PERFORMANCE

Curing Properties

Gel Time @ Ambient temp, minutes 25-30

Curing time vs. Temperature

Ambient temp	20°C	25°C	30°C
Pot life	50-60min	30-40min	40-45 min
Full cure	12-14hrs	10-12hrs	08-10hrs.

Typical cured properties of material

Compressive strength (ASTM D642) 7500-8500 Psi
Flexural strength (ASTM 790) 8500-9000 Psi
Hardness shore D (ASTM D2240) 84-88
Shear strength (ASTM D1002) 2500-2800psi
On grit blasted MS surface
Dielectric strength 25.44
In Oil @room temperature
Break Down Voltage 33.67 KV @1.3mm DFT
Surface resistivity (ohm) 1.64X 10¹⁴
At room temp 500V, DC 1min.

SURFACE PREPARATION: FOR CONCRETE SURFACE

Concrete: Apply only to clean, dry and sound concrete substrates that are free of all coatings, sealers, curing compounds, oils, greases or any other contaminants
New concrete should be cured a minimum of 28days.

Mixing:

Mix "base and activator" in specified ration which is supplied in contrasting colors, on clean flat surface. Mix with stirrer until a uniform blend free of streaks is obtained.

Application

The mixed material should be applied using a clean brush to the prepared area; application should be carried out as soon as possible after surface preparation is complete on the same day