

EPOXY POWDER COATINGS

GENERAL DESCRIPTION :

'VIPTONE' epoxy powder coatings are thermoset formulations engineered to provide superior protection to metal substrates. These coatings exhibit excellent:

- Corrosion resistance
- Mechanical toughness and flexibility
- Electrical insulation

'VIPTONE' powders are available in a wide range of colours and finishes, including gloss, matt, and textured variants.

APPLICATION AREA :

'VIPTONE' epoxy powders deliver durable, aesthetically appealing finishes suitable for but not limited to:

- Heating and lighting equipment
- Electrical appliances
- Metal furniture and office equipment
- Tools and test instruments
- Light fittings and internal automotive components
- Household utensils, display stands, cabinets, and consoles
- Instrument panels, casings, and fire extinguishers
- Hospital and laboratory equipment
- Shelving, control panels, and associated metal components

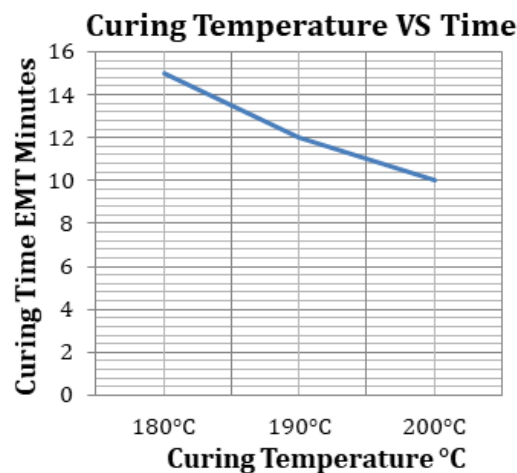
POWDER PROPERTIES:

Property	Specification
Chemical Nature	Thermoset epoxy
Particle Size	Suitable for electrostatic spray
Specific Gravity	1.2 – 1.8 g/cm ³
Shelf Life	6 months (when stored below 25°C in sealed containers)
Coverage	9.5–12 m ² /kg @60 µm (depending on colour and application)

CURING SCHEDULE :

Substrate Temperature	Curing Time
180°C	15 minutes

CURING WINDOW:



CURED FILM PROPERTIES: (MECHANICAL)

Property	Result	Test Method/Notes
Flexibility	Excellent – Pass 6 mm Mandrel	ASTM / ISO
Adhesion	Excellent – Pass 2 mm crosshatch	ASTM / ISO
Impact Resistance	Excellent – Pass 80 cm/kg (decrease with decreasing gloss)	ASTM / ISO
Erichsen Indentation	Excellent – Pass 4 mm Minimum	ASTM / ISO
Scratch Resistance	Excellent – Pass 2 kg load	ASTM / ISO
Pencil Hardness	Excellent – 2H Minimum	ASTM / ISO

CORROSION RESISTANCE:

Test	Result	Duration/Condition
Salt Spray	No visible change	500 hours
Humidity	No visible change	500 hours
Water Immersion	No visible change	500 hours
Detergent Resistance	No attack	2% solution @ room temperature, 500 hours

SOLVENT RESISTANCE:

Solvent	Result	Exposure Condition
Petrol	No attack	10 min spotting
Butyl Alcohol	No attack	10 min spotting
Alcohol	No attack	10 min spotting
Engine Oil	No attack	72 hrs @ RT

HEAT RESISTANCE :

- Suitable for intermittent use up to 120°C.
- Darker shades may tolerate higher temperatures.

NOTE : The above results are indicative of the properties of VIPTONE epoxy powder paints in general. Slight variation in properties may be noticeable from shade to shade because of the variation in the chemical nature of the pigment.

For corrosion and solvent resistance tests, the film thickness should be around 60-80 microns) on Zinc phosphate steel and cured at 180°C/15 Minutes EMT or 200°C/10 Minutes EMT. For other tests, thickness should be kept at 50-60 microns. All the tests were carried as per the ASTM or ISO method, wherever applicable.

Storage :

- Store in a cool, dry environment below 25°C.
- Containers must remain tightly sealed at all times.
- Avoid exposure to humidity, dust, or direct sunlight.

DISCLAIMER:

Performance is dependent on application methods and factory conditions. Users must validate suitability for their own processes and requirements. Vipraj accepts no liability for damages, injury, or loss resulting from use of this product or information in this document.