

INFORMATION SHEET

POWDER COATING



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Epoxy-Polyester Powder

Description

Epoxy-polyester powder coating is based on specially selected resins to give the hard durable finish associated with epoxy coating but with superior heat stability and exterior durability. Typical applications are those where a tough decorative finish is desirable such as domestic appliances and office furniture.

For use requiring ultimate heat stability and outside durability polyester powder should be used.

Application Areas

Camping equipment
Cookers
Domestic appliances
Electrical cabinets
Garden tools

Light fittings
Office furniture
Partitioning
Radiators

Finishes

Gloss - TLM-G Rapid Cure - Low Bake
Matt - TLM-M Standard Cure
Semigloss - TLM-S Standard Cure

Any colour by arrangement subject to quantity

Curing Schedules

Rapid Cure - 190°C - 6 mins

Low Bake - 160C - 11 mins

Coating Thickness

Minimum 40 microns
Preferred 50 - 65 microns

Particle Size

100% below 90 microns

Specific Gravity

1.3 - 1.8 depending on colour and finish

Application

Suitable for application by proprietary manual or automatic corona discharge equipment and triboelectric charging guns.

Pretreatment

It is essential to ensure that the surface to be coated is free from dust, rust, scale, oil, etc.

Chemical pretreatment of the substrate is essential to increase the long term corrosion resistance. Further information is given in our publication 'Application of Powder Coatings'.

Shelf Life

TLM - G 6 months from date of manufacture
TLM - S 12 months from date of manufacture

Storage

Store below 25°C in dry conditions

Health and Safety

Use in accordance with the Code of Safe Practice published by the Paintmakers Association of Great Britain, "Application of Powder Coatings by Electrostatic Spraying". Copies are available on request.
To prevent inhalation of airborne powder face masks capable of removing respirable dust should be worn. Skin contact should be avoided and any deposited powder removed with soapy water.
Some powders, mainly bright red and yellow shades, contain lead chrome and cadmium pigments.
Further information is given in our Health and Safety Sheet.

Coating Properties

Test panels. 50 microns thickness applied to lightweight zinc phosphated steel.

Physical Properties

				TLM - S	TLM - G
Flexibility	BS3900 E1	Pass	mm	6	3
Scratch	BS3900 E2	Pass	kg	4	4
Impact	BS1391				
	Direct	Pass	in lbs	80	100
	Reverse	Pass	in lbs	80	100
Erichsen cupping	BS3900 E4	Pass	mm	6	8
Cross hatch	BS3900 E6	Pass	%	100	100

Environmental Properties

Humidity resistance	BS3900 F2	Pass	hours	1000	1000
Salt spray resistance	ASTM B117	Pass	hours	1000	1000
Water resistance	BS3900 G2	Pass	hours	1000	1000

Detergent Resistance

No blistering after 50 hours in 2 % boiling tide

Boiling Water Resistance

No blistering after 50 hours

Solvent and Chemical Resistance

Good resistance to acids, alkalis and solvents at room temperature. May be attacked by dilute nitric acid, ketones and trichloroethylene. Refer to Information sheet "Chemical Resistance of Powder".

Exterior Durability

Some chalking will occur after six months but protective qualities are unimpaired providing adequate pretreatment is used.

Heat Resistance

White and pale colours resistant to yellowing at continuous temperatures up to 100°C. Dark colours can be subjected to higher temperatures.

Data quoted is typical but may vary from product to product. Environmental results are not applicable to metallic finishes.

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