

E-Prime™

Modified Epoxy Powder Coating

Product Code: 953-88386

Description

E-Prime™ is an epoxy based powder primer formulated to give additional protection to sharp profile/edges or complex metal shapes. E-Prime™ can be used as a sandable filler for small surface imperfections and/or to provide additional film thickness for improved corrosion protection.

E-Prime™ shows easy application properties and gives a film very resistant to wear and damage.

Features

Benefits

Very good adhesion	Excellent for use as a primer
Very good corrosion protection	Long intact life of coating (with topcoat over the primer)
Very good surface hardness	Hard wearing/serviceable finish
No solvents or emissions	Less waste and pollution to the environment
Good chemical resistance	Resists oil and general chemical spills

Uses

E-Prime® can be used as a primer over a variety of substrates including steel and aluminium but is especially suited to aluminium castings, hot dipped galvanised or other porous metals

Performance Guide

Weather	E-Prime™ is not recommended for exterior use without the use of an exterior durable topcoat on top of the E-Prime™. It contains an epoxy component which will chalk on exterior exposure.	Salt Spray	Very good salt spray resistance. < 3mm adhesion loss at scribe after 250 hours salt spray on steel.
Heat	Excellent resistance to 120°C continuous service conditions.	Humidity	Excellent resistance to 38°C/100% humidity for 250 hours on steel.
Acid	Resistant to spills of dilute acid.	Abrasion	Excellent resistance to abrasion.
Alkali	Resistant to spills of dilute alkali.	Pencil Hardness	Min H
Flexibility	Pass 40 inch/lb	Cross Hatch Adhesion	No removal

Chemical Resistance

Very good resistance to oils and general chemicals.

Ethyl Acetate	Softens after prolonged contact	White Spirits	Resistant
Ethanol	Resistant	Xylene	Slight softening/limit contact
Methyl Ethyl Ketone	Softens after prolonged contact		

Product Guide

Colour	Light Grey	Specific gravity	1.5
Gloss Level	10-20% at 60°	Shelf life	12 months when stored below 25°C/dry conditions

Application Data

Application Method	Electrostatic spray		
Clean Up	Dust or vacuum up loose powder. Avoid use of compressed air.		
Cure Schedule	Metal Temperature (°C)	Time (minutes)	
	210	7	
	200	8	
	190	12	
	180	15	
	Green cure (partial cure) - prior to the application of a topcoat is possible but the cure cycle of the topcoat must (at a minimum) satisfy the cure conditions of E-Prime™.		
Cured Film Thickness	Recommended:	70 µm	
	Range:	50 – 100 µm	

Note: Curing below metal temperatures of 180°C, or above metal temperatures of 210°C are not recommended.

Theoretical spreading rate at recommended film thickness

A coverage rate of 8 - 10m²/kg is commonly experienced. Practical spreading rates will vary due to such factors as method and conditions of application and surface profile and texture.

Application Guide

Surface Preparation

All surfaces should be degreased and pre-treated for optimal performance. Suitable pre-treatment includes:

Aluminium	Yellow chromate or green chromate/phosphate	(refer AS3715-2002 and/or BS6496)
Ferrous metals	Zinc phosphate or Iron phosphate	(refer BS6497)
Zinc Coated Metals (eg. galvanising)	Zinc phosphate or chromate	(refer BS6497)

Application Procedure and Equipment

- 1a) For fluidised bed, ensure uniform fluidisation of powder. Fluidised powder should resemble “simmering liquid”. Aged or compacted powder may require pre-conditioning for several minutes to fluidise evenly.
- 1b) For box feeders, ensure probe is fully inserted in powder and operated as per manufacturer’s recommendations.
2. Apply by electrostatic spray.
3. Cure as per recommendations outlined above.
4. Test for cure of the coating by contact with a drop of Corsol PGMA (available from Dulux Powder Coatings) for 30 seconds. Surface should be wiped dry and immediately checked for softening. Only slight surface softening should occur.

Health and Safety

The MSDS is an integral part of using this product as it contains information on the potential health effect of exposure, personal protective equipment needed and other relevant SH&E information.

For detailed information, refer to product label and the current Chemical Data Sheet (No. 10955) available through Sales and Customer Service Offices.

Phone: Australia:- 13 24 99 New Zealand:- 64 9 441 8244

Precautions and Limitations

- As a result of possible wide application variations and stoving conditions, E-Prime® may show variation between Dulux Powder Coatings prepared samples and production applied material. Therefore, it is the applicator and/or their customer's responsibility to ensure the product conforms to their requirements.
- For optimum corrosion performance ensure recommended dry film thickness is obtained.
- Not recommended for use in highly corrosive environments such as severe marine or industrial locations.
- Not recommended for exterior applications.

Transport and Storage

Sizes:	20 kg	Flashpoint:	N/A
Weight:	20 kg	UN:	N/A
Dangerous Goods Class:	N/A	Package Group:	N/A
Shipment Name:	Not dangerous goods. No special transport requirements.		

Dulux Powder Coatings
51 Winterton Road
Clayton, Victoria, 3168
Australia
ACN 004 117 828

Orica Powder Coatings
31B Hillside Road
Glenfield, Auckland
New Zealand



Telephone:	61 3 9542 4500	64 9 441 8244
Fax:	61 3 9542 4542	64 9 441 8242

The word Orica, the Ring Device, and the Orica mark are trademarks of the Orica Group of Companies.

Dulux and Other marks followed by ® are registered trademarks. Marks followed by the symbol ™ are trademarks.

DISCLAIMER: Any advice, recommendation, information, assistance or service provided by Orica Powder Coatings in relation to goods manufactured by it or their use and application is given in good faith and is believed by Orica Powder Coatings to be appropriate and reliable. However, any advice, recommendation, information, assistance or service provided by Orica Powder Coatings provided without liability or responsibility PROVIDED THAT the foregoing shall not exclude, limit, restrict or modify the right entitlements and remedies conferred upon any person or the liabilities imposed upon Orica Powder Coatings by any condition or warranty implied by applicable legislation, regulation or other Government ordinance voiding or prohibiting such exclusion, limitation or modification