

PyrotecTM FR

Page 1 of 3

Fire Resistant Polyester Powder Coating

Product Code: 913/939 Line

Specification met: Meets requirements of BS476:Part 7:1987, AS3715, BS6496, BS6497.

Description

Pyrotec FR is a thermosetting polyester powder coating that meets the requirements of BS476:Part 7:1987 for classification of the surface spread of flame.

Features

Benefits

Fire resistant	Reduced smoke and fume generation
UV resistant	Suitable for interior and exterior applications
One coat application	Reduced application costs and improved quality finish
Increased hardness	Excellent resistance to chipping and/or scratching
No solvent or emissions	Less waste and pollution to the environment

Uses

Pyrotec FR has been formulated for use on interior and/or exterior aluminium or metal fittings that require stringent fire protection.

Performance Guide

Weather	Good resistance to weathering. Suitable for outdoor applications.	Salt Spray	Good. < 3mm adhesion loss at scribe after 250 hours salt spray on pre-treated steel, 1000 hours on pre-treated aluminium.
Heat	Excellent resistance to 120°C continuous service conditions.	Humidity	Good resistance to 38°C/100% humidity for 1000 hours on pre-treated aluminium.
Acid	Resistant to spills of dilute acid. Avoid contact.	Abrasion	Very good resistance to abrasion.
Alkali	Resistant to spills of dilute alkali. Avoid contact.	Pencil Hardness	Min H
Flexibility	Excellent > 160 inch/lb	Knoops Hardness	Average 15
		Cross Hatch Adhesion	No removal

Chemical Resistance

Mortar	Resistant	White Spirits	Resistant
Ethanol	Resistant	Xylene	Slight softening/limit contact
Methyl Ethyl Ketone	Softens/avoid contact	Ethyl Acetate	Softens/avoid contact

Pyrotec™ FR

Page 2 of 3

Product Guide

Colour	A wide range of made to order colours	Specific gravity	1.3 - 1.7 @ colour
Gloss Level	25 – 98% at 60°, as required	Shelf life	12 months when stored below 30°C/dry conditions

Application Data

Application Method	Electrostatic spray.		
Clean Up	Dust or vacuum loose powder. Avoid use of compressed air.		
Cure Schedule	Metal Temperature (°C)	Time (minutes)	
	210	4	
	200	5	
	180	8	
Cured Film Thickness	Recommended:	80 µm	
	Range:	50 – 120 µm	

Note: Light colours may require a higher minimum film build for optimum coverage and colour consistency.

Theoretical spreading rate at recommended film thickness

A spreading rate of 8 - 10m²/kg corresponds to 80µm cured film thickness assuming no loss. Practical spreading rates will vary due to such factors as method and conditions of application and surface profile and texture.

Application Guide

Surface Preparation

Surfaces should be prepared according to appropriate standards such as AS/NZS4506, AS3715, BS6496, BS6497 (available from Standards Australia or Standards New Zealand offices).

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

Aluminium	Yellow chromate or green chromate/phosphate	(refer AS3715 and/or BS6496)
Ferrous metals	Abrasive blast(SA 2.5), Zinc phosphate or Iron phosphate	(refer BS6497)
Zinc Coated Steels (eg. galvanising)	Zinc Phosphate or chromate	(refer BS6497)
Stainless Steel	Suitable metal blast. Recommended maximum blast profile of 25µm	

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.
Care should be exercised when stoving temperatures are in excess of 220°C as these high temperatures may affect the appearance and film integrity of the finish.
4. Test for cure of the coating by contact with a drop of Corsol PGMA (available from Orica Powder Coatings) for 30 seconds. Surface should be wiped dry and immediately checked for softening. Only slight surface softening should occur.

PyrotecTM FR

Page 3 of 3

Care and Maintenance

As a general rule, cleaning of externally located powder coating surfaces must take place every six months. Where salts/pollutants are more prevalent such as seaside and industrial areas, a cleaning program should be carried out more frequently.

THREE STEPS TO CLEANING POWDER COATED SURFACES

1. Remove loose deposits with a wet sponge (avoid scratching the surface by dry dusting).
2. Using a soft clean cloth and a mild detergent in warm water, clean the powder coating to remove dust, salt or other deposits.
3. Always rinse after cleaning with fresh water to remove any remaining detergent.

WARNING: In some cases, strong solvents recommended for thinning various types of paints and also for cleaning up mastics/sealants are harmful to the extended life of the powder coated surface. These solvents should not be used for cleaning purposes. If paint splashes or sealants/mastics need to be removed then the following solvents can be used safely: Methylated Spirits, Turpentine, White Spirits, Ethyl Alcohol, Isopropanol.

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 available through Sales and Customer Service Offices.

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Precautions and Limitations

- As a result of possible wide application variations and stoving conditions, some products and colours may show variation between Orica 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 performance ensure recommended dry film thickness is obtained.
- Not recommended for use in highly corrosive environments such as severe marine or industrial locations.

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.		

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