

# Pyrotec<sup>TM</sup> FR

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## 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

<b>Weather</b>	Good resistance to weathering. Suitable for outdoor applications.	<b>Salt Spray</b>	Good. < 3mm adhesion loss at scribe after 250 hours salt spray on pre-treated steel, 1000 hours on pre-treated aluminium.
<b>Heat</b>	Excellent resistance to 120°C continuous service conditions.	<b>Humidity</b>	Good resistance to 38°C/100% humidity for 1000 hours on pre-treated aluminium.
<b>Acid</b>	Resistant to spills of dilute acid. Avoid contact.	<b>Abrasion</b>	Very good resistance to abrasion.
<b>Alkali</b>	Resistant to spills of dilute alkali. Avoid contact.	<b>Pencil Hardness</b>	Min H
<b>Flexibility</b>	Pass 50kg.cm	<b>Knoops Hardness</b>	Average 15
		<b>Cross Hatch Adhesion</b>	No removal
<b>Chemical Resistance</b>			
<b>Mortar</b>	Resistant	<b>White Spirits</b>	Resistant
<b>Ethanol</b>	Resistant	<b>Xylene</b>	Slight softening/limit contact
<b>Methyl Ethyl Ketone</b>	Softens/avoid contact	<b>Ethyl Acetate</b>	Softens/avoid contact

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## Product Guide

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

## Application Data

<b>Application Method</b>	Electrostatic spray.		
<b>Clean Up</b>	Dust or vacuum loose powder. Avoid use of compressed air.		
<b>Cure Schedule</b>	<b>Metal Temperature (°C)</b>	<b>Time (minutes)</b>	
	210	8	
	200	10	
	180	15	
<b>Cured Film Thickness</b>	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 - 10m<sup>2</sup>/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 DGL Powder Coatings) for 30 seconds. Surface should be wiped dry and immediately checked for softening. Only slight surface softening should occur.

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### *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.

Phone: 86 769 8755 8778

### *Precautions and Limitations*

- As a result of possible wide application variations and stoving conditions, some products and colours may show variation between DGL 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.



DGL Camel Powder Coatings (Dongguan) Ltd  
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### Transport and Storage

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

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