

Dulux Powder Coatings Duralloy® FG

AU_DP01827

Product Code	959 Line
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Description

Duralloy® FG is a tough thermosetting polyester powder coating with decorative and durability characteristics, suitable for applications over zinc coated galvanised substrates and castings where excellent overall performance is required. Is supported by a 10 year durability warranty* on residential projects up to 3 floors from the ground. The importance of galvanised steel as a substrate in the Australasian market is a recognised factor and Duralloy® FG has been developed to be suitable for application to the wide range of galvanised steels available. Duralloy® FG shows particularly good flow characteristics along with the excellent tolerance to the micro porosity present in many galvanised steels and diecasting.

*Subject to the terms and conditions of the relevant product warranty. Please contact your local Dulux representative for further details.

Features And Benefits

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| <ul style="list-style-type: none"> ▪ Meets or exceeds AS 3715 and AS 4506 ▪ Tough coating ▪ No solvents or emissions ▪ TGIC free ▪ Suitable for various applications ▪ Excellent flow | <ul style="list-style-type: none"> ▪ Guaranteed 10 year performance on correctly pre-treated aluminium ▪ Excellent colour retention ▪ Quality assurance systems in place ▪ Smooth film appearance ▪ Less waste and pollution to the environment ▪ Hard wearing/serviceable finish |
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Uses

Duralloy® FG has a multitude of uses over castings, zinc coated and galvanised, and can also be used on steel and aluminium substrates. Examples include: castings and pool fencing, but also include bicycles, garden tools, lawn mowers, architectural finishes, exterior furniture and automotive components.

Precautions And Limitations

As a result of possible wide application variations and stoving conditions, some products and colours 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 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 components which are exposed to constant temperatures exceeding 120°C.

Performance Guide

Exterior Durability	Good resistance to weathering. Suitable for outdoor applications.	Salt	Good.< 3mm adhesion loss at scribe after 250 hours salt spray on pre-treated steel, 1000 hours on pre-treated aluminium.
Heat Resistance	Excellent resistance to 120°C continuous service conditions.	Water	Good resistance to 38°C/100% humidity for 1000 hours on pre-treated aluminium.
Solvent	Resistant to alcohol and white spirits.	Abrasion	Very good resistance to abrasion.
Acid	Resistant to spills of dilute acid. Avoid contact.	Alkali	Resistant to spills of dilute alkali. Avoid contact.

Typical Properties			
Gloss Level	25 98%	Coverage	A coverage rate of 8 - 10m ² /kg corresponds to 80 microns
Shelf Life	12 months when stored below 30°C/dry conditions.	V.O.C Level	N/A
Colour	A range of stock and made to order solid colours.		
Meets GBCA VOC Requirement?	Yes. Dulux Powder Coatings: <ul style="list-style-type: none"> ▪ Contain no harmful volatile organic solvents ▪ Free of heavy metal pigments such as lead, cadmium, arsenic & mercury ▪ Proven low temperature curing technology ▪ Produced with stringent Safety, Health & Environmental policies and standards ▪ Developed with consideration of life cycle analysis, to guide our suppliers and the materials we use ▪ Manufactured in facilities where significant energy and resources employed in production, are measured with aggressive reduction targets in place ▪ Produced and used with minimal waste Consequently, Dulux ® Powder Coatings are a prime consideration for projects where air quality standards have been set, such as 4, 5 & 6 Green Star Rating Projects.		
Sanding Properties	Sandable	Film Build (microns)	Minimum 50 microns, Maximum 110 microns
Clean Up	Dust or vacuum loose powder. Avoid use of compressed air.	Application Method	Electrostatic Spray
Specific Gravity	1.62 - 1.68 @ colour	Flexibility	Excellent < or = 160 inch/lb
Pencil Hardness	Min H	Knoop Hardness	Average 15
Cross Hatch Adhesion	No removal	Chemical Resistance	Mortar Resistant White Resistant Spirits Resistant Ethanol Resistant Xylene Slight softening/limit contact Methyl Ethyl Softens/avoid contact Ethyl Acetate Softens/avoid contact
Cure Schedule	Metal Temperature (°C) 180	Time (minutes) 8 Mins	Comments

Application Guide	
Surface Preparation	<ul style="list-style-type: none"> • Surfaces should be prepared according to appropriate standards such as AS3715-2002, 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: <ul style="list-style-type: none"> 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) Stainless Steel - Suitable metal blast. Recommended maximum blast profile of 25 micron.
Application Procedure And Equipment	<ul style="list-style-type: none"> • 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. 5. Most hot dipped galvanised steels have gas entrapped in the zinc layer. Unless this is properly treated the gas may be released during the curing of the powder coating, leading to an unacceptable appearance and potentially reduced service life. To obtain a more reliable result, the inclusion of a degassing stage as a routine part of the powder coating process is recommended. The recommended degassing procedure is: <ul style="list-style-type: none"> Heat the substrate to a temperature at least 10°C above the powder coating curing temperature to be used, and maintain this temperature for at least 7 minutes. The degassing process will minimise the incidence of pinholes in the cured film. Electrostatic spray. Light colours may require a higher minimum film build for optimum coverage and colour consistency. Theoretical spreading rate at recommended film thickness A coverage rate of 8 - 10m²/kg corresponds to 80micron 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.

Care And Maintenance
<p>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.</p> <p>THREE STEPS TO CLEANING POWDER COATED SURFACES</p> <ol style="list-style-type: none"> 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. <p>WARNING:</p> <p>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.</p>

Health And Safety			
MSDS Number	21207	Safety Precautions	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. 21207) available through Sales and Customer Service Offices. Phone: Australia:- 13 24 99
In the case of emergency, please call 1800 033 111			

Transport And Storage			
Package Weight	20 Kg	Shipment Name	Not dangerous goods. No special transport requirements.

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