

Dulux Powder Coatings Duralloy®

AU_DP01899

Product Code	272 Line
Approval	Meets and/or exceeds requirements of AS3715 and AAMA 2603. Classification of fire performance 272-line has a Group Classification of 1 according to the National Construction Code (NCC) Volume One Specifications C1.10 and A2.4 of the Building Code of Australia (BCA)

Description

Duralloy® is a TGIC free, tough thermosetting powder coating that exhibits decorative and durability characteristics suitable for interior and exterior product applications combined with excellent overall performance. Supported by a 10 year durability warranty* on residential projects up to 3 floors from the ground.

*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"> ▪ Guaranteed 10 year performance on correctly pre-treated aluminium ▪ Lower temperature cure ▪ Wide product range ▪ No solvents or emissions | <ul style="list-style-type: none"> ▪ Very good colour retention ▪ Cost savings on energy or increased line speeds ▪ Extensive selection of colours ▪ Less waste and pollution to the environment |
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Uses

Duralloy® was developed primarily for use on extruded aluminium, including window and door joinery, and extruded aluminium panel work on class 1 & 10 Residential buildings. Duralloy® is also suitable for use in many applications over a variety of substrates, including mild steel and aluminium.

Precautions And Limitations

- Duralloy® is only available in colours which meet Dulux Powder Coatings pigmentation criteria. Strong, bold colours may not necessarily meet these criteria and should be referred to Dulux Powder Coatings before specifying.
- 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.
- Excessive bending or post fabrication may cause cracking of the pretreatment and powder coating. Specifiers are advised to discuss post fabrication techniques with Dulux prior to commencing such fabrication.
- Please refer to the Duralloy Performance Warranty for conditions & limitations which effect the warranties described in this data sheet.

Performance Guide

Exterior Durability	Very good resistance to weathering.	Salt	Excellent salt spray resistance over pre-treated aluminium. (1500 hours ASTM B117)
Heat Resistance	Excellent resistance to 120°C continuous service conditions.	Water	Excellent resistance to 38°C/100% humidity for 1500 hours on pre-treated aluminium.
Solvent	Resistant to alcohol and methylated 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	30- 98%	Coverage	Theoretical spreading rate at recommended film thickness: A										
Shelf Life	12 months when stored below 25°C/dry conditions.	V.O.C Level	Nil										
Colour	A range of stock and made to order solid & pearl 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.												
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	1.52 - 1.59 @ colour										
Flexibility	Limited < or = 80 inch/lb Avoid post fabrication or refer to	Pencil Hardness	Min F										
Knoop Hardness	N/A	Cross Hatch Adhesion	No removal Chemical										
Chemical Resistance	<table border="0"> <tr> <td>Mortar</td> <td>Resistant</td> </tr> <tr> <td>Ethanol</td> <td>Resistant</td> </tr> <tr> <td>Xylene</td> <td>Softens/ avoid contact</td> </tr> <tr> <td>Methyl Ethyl Ketone</td> <td>Softens/avoid contact</td> </tr> <tr> <td>Ethyl Acetate</td> <td>Softens/avoid contact</td> </tr> </table>			Mortar	Resistant	Ethanol	Resistant	Xylene	Softens/ avoid contact	Methyl Ethyl Ketone	Softens/avoid contact	Ethyl Acetate	Softens/avoid contact
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Cure Schedule	Metal Temperature (°C)	Time (minutes)	Comments										
	210	4 mins	Standard Cure										
	200	5 mins	Standard Cure										
	180	8 mins	Standard Cure										

Application Guide	
Surface Preparation	<ul style="list-style-type: none"> ▪ Surfaces should be prepared according to AS1627 Section 3 to achieve a conversion coating corresponding to Class 1. Chemical supplier recommendations should also be adhered to, as appropriate. Suitable pre-treatment includes: <ul style="list-style-type: none"> - Aluminium: Chrome chromate or green chromate/phosphate (refer AS1627) - Ferrous metals: Abrasive blast (SA 2.5) / Zincshield™ powder primer (refer Zincshield™ Data Sheet), or Zinc phosphate or Iron phosphate (refer BS EN 13438Z:2013) - Zinc Coated Steels (eg. Galvanising): Zinc Phosphate or chromate (refer BS EN 13438Z:2013) Suitable metal blast. Recommended maximum blast profile of 25 microns
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. Box feeders are not suitable for the application of pearlescent and metallic finishes. 2) Apply by electrostatic spray. 3) Cure as per recommendations outlined above. Metal temperatures in excess of 210°C should be avoided due to the possibility of colour change or thermal degradation of the polymer. 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. Electrostatic spray NOTES: * 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 - 10 sqm/kg corresponds to 80 microns 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

Refer to AAMA 609 and 610

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, industrial and geothermal 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 and will render the warranty void if used. If paint splashes or sealants/mastics need to be removed then the following solvents can be used safely: Methylated Spirits, Ethyl Alcohol, Isopropanol.

Health And Safety

MSDS Number	DLXGHSEN001353 (NON- Hazardous Substance and NON-Dangerous Goods) DLXGHSEN002560 (Hazardous Substances and NON-Dangerous Goods)	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. 10489) is available through Sales and Customer Service Offices. Phone: Australia:- 13 24 99
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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.
Flash Point	N/A	UN Number	N/A
Dangerous Goods Class	N/A		

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