



# Dulux Duralloy<sup>®</sup>

Dulux TGIC Free Extra Durable Powder Coating Generation 2 technology.			
<b>Product Code:</b>		915 Line	
<b>Specification met:</b>		Meets and/or exceeds requirements of AAMA2603, AS3715, BS6496.	
<b>Description</b>			
Duralloy <sup>®</sup> Powder Coating is a TGIC free polyester powder coating range of tough thermoset powder coatings with decorative and durability characteristics that are suitable for internal use and external product applications and which exhibit excellent overall performance. Duralloy <sup>®</sup> is formulated with advanced polyester resin technology and high performance pigments to conform with the performance requirements of AAMA2603-98			
<b>Features</b>		<b>Benefits</b>	
10 year film integrity		Guaranteed performance on correctly pre-treated aluminium	
10 year colour warranty in N.Z.		Very good colour retention	
Environmental warranty statement		Contains no PVC or heavy metal with extremely low VOC emissions	
Registered applicators		Quality assurance systems in place	
High transfer efficiency		Increased first pass transfer	
25 year service life warranty		Low maintenance	
Low cure		Cost savings on Energy or increased line speeds	
Good flow out		Smooth film appearance	
Tough polyester		Hard wearing/serviceable finish	
<b>Uses</b>			
Duralloy <sup>®</sup> Powder Coating was developed primarily for use on extruded aluminium, including window and door joinery and extruded aluminium panel work on residential and light commercial buildings. Duralloy <sup>®</sup> may however, be used for a variety of purposes over varied substrates, from steel to aluminium. Examples of their application include bicycles, garden tools, lawn mowers and automotive components.			
<b>Performance Guide</b>			
<b>Weather</b>	Excellent resistance to weathering.	<b>Salt Spray</b>	Excellent salt spray resistance over pretreated aluminium. (1000 hours - unaffected @ ASTM B117) 2-3mm adhesion loss at scribe after 250hrs salt spray on pretreated steel panels
<b>Heat</b>	Excellent resistance to 120°C continuous service conditions.	<b>Humidity</b>	Excellent 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 F
<b>Flexibility</b>	Pass 120 inch/lb	<b>Cross Hatch Adhesion</b>	No removal

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<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
<b>Product Guide</b>			
<b>Colour</b>	A wide range of stock and made to order solid colours & pearlescents	<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
<b>Application Data</b>			
<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>	
	200	7	
	180	8	
	175	10	
<b>Cured Film Thickness</b>	Recommended:	80 µm	
	Range:	50 – 150 µm	
Note: Light colours may require a higher minimum film build for optimum coverage and colour consistency.			
<b>Theoretical spreading rate at recommended film thickness</b>			
A coverage rate of 8 - 10m <sup>2</sup> /kg corresponds to 80 µm 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.			
<b>Application Guide</b>			
<b>Surface Preparation</b>			
Surfaces should be prepared according to AS1627.6-2003 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:			
Aluminium	Chrome chromate or green chromate/phosphate	(refer AS1627.6-2003)	
Ferrous metals	Abrasive blast(SA 2.5)/Zincshield™ powder primer, Or Zinc phosphate or Iron phosphate	(refer Zincshield™ Data Sheet) (refer BS6497)	
Zinc Coated Steels (eg. Galvanising)	Zinc Phosphate or chromate	(refer BS6497)	
Stainless Steel	Suitable metal blast. Recommended maximum blast profile of 25µm		
<b>Application Procedure and Equipment</b>			
Applied by Dulux Powder Coatings Duralloy® Registered Applicators with equipment and control systems to enable correct metal pre-treatment and control of the application and stoving as set out in the Duralloy® Applicators Manual.			
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 at 220°C or above as some colours are prone to discolouration.		
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.		

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## Care and Maintenance

Reference should be made to AAMA610.1:1979 standard for cleaning of surfaces. This is a condition of the warranty.

In broad terms, cleaning of externally located powder coating surfaces must take place every three 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 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

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. 000000002378 ) available through Sales and Customer Service Offices.

Phone: Australia:-	13 24 99	New Zealand:-	09 441 8244.
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## Precautions and Limitations

- Strong, bold colours may not necessarily meet these criteria and so 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 a variance 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. Some light colours require increased film thickness average to achieve optimal consistency.
- 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.

Dulux Powder Coatings is under no obligation to replace product or repair damages that may result from the use of this product in any way other than stated on the Product data sheet or Material safety data sheet.

## Transport and Storage

<b>Sizes:</b>	20 kg & 3 Kg	<b>Flashpoint:</b>	N/A
<b>Weight:</b>	20 kg & 3 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.		
	Dulux Powder & Industrial Coatings	Dulux Powder & Industrial Coatings	
	1-15 Pound Road	31B Hillside Road	
	Dandenong South, VIC 3175	Glenfield, Auckland 0627	
	Australia	New Zealand	
	ACN 004 117 828		
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