

# Duralloy®

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## High Durability Powder Coating

**Product Code:** 915 Line

**Specification met:** Meets and/or exceeds requirements of AS3715, BS6496, AAMA2603.2002

### 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.

### Features

### Benefits

10 year Film Integrity Warranty*	Guaranteed performance on correctly pre-treated aluminium
7 year Colour Warranty*	Very good colour retention
Low cure	Cost savings on energy or increased line speeds
Wide product range	Extensive selection of colours
No solvents or emissions	Less waste and pollution to the environment

\* Warranties are only available when application is completed by Orica Camel Registered Applicators using correctly pretreated Extruded Aluminium. For full details and conditions, including limitations, refer to Duralloy Performance Warranty.

### Uses

Duralloy® was developed primarily for use on extruded aluminium, including window and door joinery, and extruded aluminium panel work on residential and light commercial buildings.

### Performance Guide

<b>Weather</b>	1 years Florida according to AAMA2603-2002 Color Change $\Delta E < 5$ Gloss Retention $> 30\%$ Chalking Less than No.8	<b>Salt Spray</b>	Excellent salt spray resistance over pre-treated aluminium. (3000 hours ASTM B117)
<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>Knoops Hardness</b>	Min 15
<b>Flexibility</b>	Limited $< \text{or} = 80 \text{ inch/lb}$ Avoid post fabrication or refer to applicator's manual for further details	<b>Cross Hatch Adhesion</b>	No removal

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### Product Guide

#### Chemical Resistance

<b>Mortar</b>	Resistant	<b>Xylene</b>	Slight softening/limit contact
<b>Ethanol</b>	Softens/avoid contact	<b>Ethyl Acetate</b>	Softens/avoid contact
<b>Methyl Ethyl Ketone</b>	Softens/avoid contact	<b>White Spirits</b>	Resistant
<b>Colour</b>	A range of stock colours and made to order solid colours	<b>Specific gravity</b>	1.2 - 1.7 @ colour
<b>Gloss Level</b>	30 - 98% at 60°,	<b>Shelf life</b>	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.

<b>Cure Schedule</b>	<b>Metal Temperature (°C)</b>	<b>Time (minutes)</b>
	210	6
	200	8
	180	10
<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 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.

### Application Guide

#### Surface Preparation

Surfaces should be prepared according to AS1627.6-1994 Section 3 to achieve a coating corresponding to Class 2 or 4 or BS6496, according to application. Chemical supplier recommendations should also be adhered to, as appropriate.

Suitable pre-treatment includes:

Aluminium                      Yellow chromate or brown chromate                      (refer AS1627.6-1994)

#### 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.

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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 solvent (available from Orica Camel Powder Coatings) for 30 seconds. Surface should be wiped dry and immediately checked for softening. Only slight surface softening should occur.

### 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, 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, 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 (No. 10489) available through Sales and Customer Service Offices.

Phone:

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### Precautions and Limitations

- Duralloy® is only available in colours which meet Orica Camel Powder Coatings pigmentation criteria. Strong, bold colours may not necessarily meet these criteria and should be referred to Orica Camel Powder Coatings before specifying.
- As a result of possible wide application variations and stoving conditions, some products and colours may show variation between Orica Camel 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 Orica Camel or the Registered Applicator prior to commencing such fabrication



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- Please refer to the Duralloy Performance Warranty for conditions & limitations which effect the warranties described in this data sheet.

### 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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