

Duratec

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Super Durable Powder Coating

Product Code: 958 Line

Specification met: Meets and/or exceeds requirements of AS3715, BS6496, AAMA2604-05.

Description

Duratec is a thermosetting powder coating designed specifically for architectural applications where colour and gloss retention are critical. Duratec is formulated with advanced polyester resin technology and utilising high performance pigments to conform with the performance requirements of AAMA2604-05 (Supercedes AAMA 605.2 -92) . It gives superior gloss and colour retention over standard polyesters.

Features

Benefits

10 year film integrity	Guaranteed performance on correctly pre-treated aluminium
10 year colour warranty	Excellent colour retention
Registered Applicators	Quality assurance systems in place
Good flow out	Smooth film appearance
No solvents or emissions	Less waste and pollution to the environment
Tough polyester	Hard wearing/serviceable finish

Uses

Duratec has been developed for use on extruded architectural aluminium, including window and door frames, and extruded panel work on commercial buildings.

Performance Guide

Weather	5 years Florida according to AAMA2604-05 Colour Change $\Delta E < 5$ Gloss Retention $> 30\%$ Chalking: Less than No.8	Salt Spray	Excellent salt spray resistance over pre-treated aluminium. (3000 hours ASTM B117)
Heat	Excellent resistance to 120°C continuous service conditions.	Humidity	Excellent resistance to 38°C/100% humidity for 3000 hours on pre-treated aluminium.
Acid	Resistant to spills of dilute acid. Avoid contact.	Abrasion	Excellent resistance to abrasion. Abrasion Coefficient > 20 (ASTM D968)
Alkali	Resistant to spills of dilute alkali. Avoid contact.	Pencil Hardness	Min H
Flexibility	Limited > 80 inch/lb	Knoops Hardness	Min 18
		Cross Hatch Adhesion	No removal
Chemical Resistance			
Mortar	Resistant	White Spirits	Resistant
Ethanol	Resistant	Xylene	Slight softening/limit contact
Methyl Ethyl Ketone	Softens/avoid contact	Ethyl Acetate	Softens/avoid contact

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Product Guide

Colour	A limited range of made to order solid and pearl colours	Specific gravity	1.3 - 1.7 @ colour
Gloss Level	25 - 90% at 60°, as required	Shelf life	12 months when stored below 25°/dry conditions

Application Data

Application Method	Electrostatic spray.	
Clean Up	Dust or vacuum loose powder. Avoid use of compressed air.	
Cure Schedule	Metal Temperature (°C)	Time (minutes)
	210	8
	200	10
	180	15
Cured Film Thickness	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 - 10m²/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 AAMA2604-05 (available from Standards Australia or Standards New Zealand offices). Chemical supplier recommendations should also be adhered to, as appropriate. Suitable pre-treatment includes:

Aluminium Yellow chromate or Brown Chromate (refer AS3715 and/or BS6496)

Application Procedure and Equipment

Applied by DGL Camel Powder Coatings **Duratec** 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 **Duratec** 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 solvent (available from DGL Camel 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, 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. 13960128) available through Sales and Customer Service Offices.

Phone:

86 769 8755 8778

Precautions and Limitations

- For use by **Duratec** Registered Applicators only, who can demonstrate ability to consistently meet and measure criteria according to AAMA2604-05, and **Duratec** Applicators Manual.
- **Duratec** is only available in solid and pearl colours which meet DGL Camel Powder Coatings pigmentation criteria. Strong, bold colours may not necessarily meet these criteria and should be referred to DGL Camel Powder Coatings before specifying.
- As a result of possible wide application variations and stoving conditions, some products and colours may show variation between DGL 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.
- Not recommended for post-forming.



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Transport and Storage

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

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