



Worth doing, worth Dulux.

# Dulux Duratec®



POWDER & INDUSTRIAL COATINGS

Super Durable Powder Coating	
<b>Product Code:</b>	900 Line
<b>Specification met:</b>	Meets and/or exceeds requirements of AAMA2604 and AS3715. Classification of fire performance; 900-line has a Group classification of 1-S according to the NZ Building Code verification method C/VM2 Appendix A (ref, BRANZ Fire Test report FH 5532-TT)

## Description

Duratec® is a thermosetting TGIC free powder coating designed specifically for architectural applications where colour and gloss retention are critical. Duratec® is formulated with advanced polyester resin technology and high performance pigments to meet or exceed the performance requirements of AAMA2604. It has superior gloss and colour retention compared with standard polyester powder coatings.

Features	Benefits
20 year film integrity	Warranted performance on correctly pre-treated aluminium when applied by a Dulux Registered Applicator.
15 year colour warranty	Excellent colour retention. Warranted performance on correctly pre-treated aluminium when applied by a Dulux Registered Applicator. Duration colour & location dependant.
Registered Applicators	Quality assurance systems in place
Good flow out	Smooth film appearance
No solvents or emissions	Less waste and pollution to the environment
TGIC free	Reduced risk to health
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

<b>Weather</b>	Excellent resistance to weathering, providing extended protection for aluminium.	<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 3000 hours on pre-treated aluminium.
<b>Acid</b>	Resistant to spills of dilute acid. Avoid contact.	<b>Abrasion</b>	Excellent resistance to abrasion. Abrasion Coefficient > 20 (ASTM D968)
<b>Alkali</b>	Resistant to spills of dilute alkali. Avoid contact.	<b>Pencil Hardness</b>	Min H
		<b>Knoops Hardness</b>	Min 18
<b>Flexibility</b>	Limited < or = 9Nm (80 inch/lb)	<b>Cross Hatch Adhesion</b>	No removal

## Chemical Resistance

<b>Mortar</b>	Resistant	<b>White Spirits</b>	Slight softening/limit contact
<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 limited range of made to order solid and pearl colours	<b>Specific gravity</b>	1.3-1.7 @ colour
<b>Gloss Level</b>	25 - 90% at 60°, as required	<b>Shelf life</b>	12 months when stored below 25°/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>	
<u>Gloss &amp; Satin finish only</u>	210	4	
	200	5	
	180	8	
<u>Matt finish only</u>	210	8	
	200	10	
	190	15	
<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.

<b>Application Guide</b>			
<b>Surface Preparation</b>			
Surfaces should be prepared according to AS1627.6 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		(refer AS1627.6 Section 3 )
<b>Application Procedure and Equipment</b>			
Applied by Dulux 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 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.		

<b>Care and Maintenance</b>	
Reference should be made to AAMA609 and 610 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.	
<b>THREE STEPS TO CLEANING POWDER COATED SURFACES</b>	
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 Safety Data Sheet available via [www.duluxpowdercoatings.co.nz](http://www.duluxpowdercoatings.co.nz) and through Sales and Customer Service Offices.

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## Precautions and Limitations

- For use by Duratec® Registered Applicators only, who can demonstrate ability to consistently meet and measure criteria according to AAMA2604, and Duratec® Applicators Manual.
- Duratec® is only available in solid and pearl 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. Some light colours require increased film thickness average to achieve optimal consistency.
- Not recommended for use in highly corrosive environments such as very severe marine or some industrial locations.
- Not recommended for components which are exposed to constant temperatures exceeding 120°C.
- Not recommended for post-forming.

## 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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