

Dulux Powder Coatings Alphatec® with Rapidcure Technology

AU_DP02039

Product Code	265 Line	Specification	Alphatec with Rapidcure Technology
Approval	Meets requirements of AS 3715:2002 and AAMA 2603-02		

Description

Alphatec with RapidCure Technology is a TGIC free thermosetting powder coating designed to provide reductions in energy consumption during curing and or, to increase process line speeds. Alphatec with RapidCure Technology is a tough thermosetting polyester powder coating with decorative and durability characteristics, suitable for interior and exterior products applications combined with excellent overall performance.

Features And Benefits

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| <ul style="list-style-type: none"> ▪ Lower temperature cure ▪ Faster line speeds ▪ Ideal for heavy parts ▪ Faster cooling of coated parts ▪ No solvents or emissions ▪ Lower oven temperatures ▪ Colour Chart colours ▪ Interior/ exterior applications | <ul style="list-style-type: none"> ▪ Energy cost savings ▪ Increased productivity ▪ Less energy is needed to cure ▪ Less time required to cool parts from oven before packaging ▪ Less waste and pollution to the environment ▪ Cooler work environment ▪ Readily available colour range ▪ Less waste and pollution to the environment |
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Uses

Alphatec with RapidCure Technology has been developed for use over various substrates including steel and aluminium. Examples include: bicycles, garden tools, lawn mowers, architectural and automotive components.

Precautions And Limitations

Some strong, bold colours may not meet performance criteria for weathering (colour change), refer 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 severe marine or industrial locations.

Performance Guide

Exterior Durability	Excellent resistance to weathering.	Salt	Excellent salt spray resistance over pre-treated aluminium, (1000 hours AS3715 and 1500 hours AAMA 2603).
Water	Excellent resistance to 38°C/ 100% humidity for 1000 hours on pre-treated aluminium.	Solvent	Resistant to alcohol and white spirits.
Abrasion	Good resistance to 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%	Shelf Life	At least 2 years from date of manufacture if stored at < 25 °C.												
V.O.C Level	Nil	Colour	A wide range of stock and made to order solid 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)	Recommended 80 micrometers, range 60-100 micrometers	Clean Up	Dust or vacuum loose powder. Avoid use of compressed air.												
Application Method	Electrostatic spray.	Specific Gravity	1.52-1.59, colour dependant												
Flexibility	Limited < or = 80 inch/ lb	Pencil Hardness	HB												
Knoop Hardness	Min 14	Cross Hatch Adhesion	No removal												
Chemical Resistance	<table border="0"> <tr> <td>Mortar</td> <td>Resistant</td> </tr> <tr> <td>Ethanol</td> <td>Resistant</td> </tr> <tr> <td>Methyl Ethyl Ketone</td> <td>Softens/ avoid contact</td> </tr> <tr> <td>White Spirits</td> <td>Resistant</td> </tr> <tr> <td>Xylene</td> <td>Slight softening/limit contact</td> </tr> <tr> <td>Ethyl Acetate</td> <td>Softens/avoid contact</td> </tr> </table>			Mortar	Resistant	Ethanol	Resistant	Methyl Ethyl Ketone	Softens/ avoid contact	White Spirits	Resistant	Xylene	Slight softening/limit contact	Ethyl Acetate	Softens/avoid contact
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Cure Schedule	Metal Temperature (°C)	Time (minutes)	Comments												
	160	10													
	180	5													
	200	2													

Application Guide	
Surface Preparation	<ul style="list-style-type: none"> ▪ Surface Preparation Surfaces should be prepared according to standards such as AAMA2603-02 and AS/NZS4506 (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 green chromate/phosphate (refer AS3715-2002, BS6496) 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 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. 2. Apply by electrostatic spray. Proper cleaning of spray- guns is required before applying powders. 3. Cure as per recommendations outlined above. 4. Test for cure of the coating by contact with a drop of Corsol PGMA (available from Dulux) for 30 seconds. Surface should be wiped dry and immediately checked for softening. Only slight surface softening should occur. <p>Note: Light colours may require a higher minimum film build for optimum coverage</p>

Care And Maintenance

Reference should be made to AAMA610.1:1979 standard for cleaning of surfaces. 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, White Spirits, Ethyl Alcohol, Isopropanol.

Health And Safety

MSDS Number	0000000xxxxx	Safety Precautions	The SDS 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 (No. 0000000xxxxx) available through Sales and Customer Service Offices. Phone: Australia:- 13 24 99 New Zealand:- +64 9 441 8242
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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	Package Group	N/A

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