

## DULUX Alphatec®

**PRODUCT CODE** 961 & 984

**Data Sheet No.** AUDP1485

**APPROVALS** Meets requirements of Qualicoat Class I, A53715

### Description

Alphatec® is tough thermosetting polyester powder coating with decorative and durability characteristics, suitable for interior and exterior product applications combined with excellent overall performance.

### Features

Colour Chart colours  
Tough, one coat finish  
Interior/exterior applications  
Low cure/high transfer efficiency  
No solvents or emissions  
TGIC free

### Benefits

Readily available colour range  
Hard wearing/serviceable finish  
Suitable for most environments  
Reduced application costs  
Less waste and pollution to the environment  
Reduced risk to health

### Uses

Alphatec® polyesters have a multitude of uses over various substrates including steel and aluminium. Examples include: bicycles, garden tools, lawn mowers, architectural finishes and automotive components.

### Performance Guide

<b>Weather</b>	Good resistance to weathering. Suitable for outdoor applications.	<b>Salt</b>	Good. < 3mm adhesion loss at scribe after 250 hrs pre-treated steel, 1000 hrs pre-treated aluminium.
<b>Heat</b>	Good resistance to 120°C continuous service conditions.	<b>Water</b>	Excellent resistance to 38°C/100% humidity for 1000 hours on pre-treated aluminium.
<b>Solvent</b>	Resistant to alcohol and white spirits. Softens with ketones. Refer Dulux for further details.	<b>Abrasion</b>	Very good resistance to abrasion.
<b>Acid</b>	Resistant to spills of dilute acid. Avoid contact.	<b>Alkali</b>	Resistant to spills of dilute alkali. Avoid contact.

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**Typical Properties and Application Data**

<b>Gloss Level</b>	15 - 80% at 60°, as required	<b>Spread Rate</b>	12.5 sqm/kg
<b>Components</b>	1	<b>Colour</b>	A wide range of stock and made to order solid colours.
<b>Toxicity</b>	Refer CDS 13960120	<b>Shelf life</b>	12 months when stored below 30°C/dry conditions
<b>Pot Life</b>	Not applicable	<b>Wet film per coat</b>	Min 50 Max 120 Recom 80 µm
<b>Clean Up</b>	Dust or vacuum loose powder. Avoid use of compressed air.	<b>Dry film per coat</b>	Min 50 Max 120 Recom 80 µm
<b>Application Method</b>	Electrostatic spray.	<b>Specific Gravity</b>	1.3 - 1.7 @ colour
<b>Flexibility</b>	Excellent < or 160 in/lb	<b>Pencil Hardness</b>	Min H
<b>Knoop Hardness</b>	Average 15	<b>Cross hatch adhesion</b>	No removal
<b>Chemical resistance</b>	Mortar - Resistant White Spirits - Resistant Ethanol - Resistant Xylene - Slight softening/limit contact Methyl Ethyl Ketone - Softens/avoid contact Ethyl Acetate - Softens/avoid contact		
<b>Cure Schedule</b>	<b>Metal Temperature (°C)</b>	<b>Time (minutes)</b>	
	210	4 minutes	
	200	5 minutes	
	180	8 minutes	

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**Application Guide****Surface Preparation**

Surfaces should be prepared according to appropriate standards such as AS/NZS4506, AS3715-2002, BS6496, BS6497 (available from Standards Australia or Standards New Zealand offices).

All surfaces should be degreased and pre-treated for optimal performance.

Suitable pre-treatment includes:

Aluminium - Yellow chromate or green chromate/phosphate (refer AS3715-2002 and/or BS6496)

Ferrous metals - Abrasive blast (SA 2.5)/Zincshield powder primer (refer Zincshield Data Sheet) or Zinc phosphate or Iron phosphate (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**

Electrostatic spray.

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 manufacturers recommendations.

2. Apply by electrostatic spray.

3. Cure as per recommendations outlined above.

Care should be exercised when stoving temperatures are in excess of 220°C as these high temperatures may affect the appearance and film integrity of the finish.

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.

**Notes**

Light colours may require a higher minimum film build for optimum coverage and colour consistency.

**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 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. 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.

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**Health and Safety**

**MSDS Number** 13960120

**In the case of emergency please call 1800 033 111**

**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 customers 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.

When using sealants or screen printing the surface preparation is paramount to achieve good adhesion (see your Dulux technical representative for recommendations).

Alphatec® Plus is not recommended for use on Thermal Break materials.

**Transport and Storage**

**Pack A** 961 & 984

**Sizes** 20 kg

**Weight** 20 kg

**Dangerous Goods Class** NA

**Shipment Name** Not dangerous goods. No special transport requirements.

**Flash point** NA

**UN Number** NA

**Package Group** NA

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