Dulux Powder Coatings RAPIDCURE™

Product Code
260 Line

Approval
Meets and/or exceeds requirements of AS 3715:2002 and AAMA 2603-02

Description
RAPIDCURE™ is a TGIC free thermosetting powder coating designed specifically to provide reductions in energy consumption during curing and/or, to increase process line speeds. RAPIDCURE™ is formulated with a low energy curing polyester resin technology and high performance pigments to conform with high performance requirements such as AS 3715:2002 and AAMA2603-02.

Features And Benefits
- Lower temperature cure
- Faster line speeds
- Ideal for heavy parts
- Faster cooling of coated parts
- No solvents or emissions
- Lower oven temperatures
- Wide product range
- 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
- Extensive selection of colours

Uses
RAPIDCURE™ has been developed for use on extruded architectural aluminium, including window and door frames, extruded panel work on residential buildings, and other general industrial applications.

Precautions And Limitations
RAPIDCURE™ 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 severe marine or industrial locations.
Not recommended for post-forming.

Performance Guide

<table>
<thead>
<tr>
<th>Exterior Durability</th>
<th>Salt</th>
<th>Excellent salt spray resistance over pre-treated aluminium. (1000 hours AS3715 and 1500 hours AAMA 2603)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>Solvent</td>
<td>Resistant to alcohol and white spirits</td>
</tr>
<tr>
<td>Abrasion</td>
<td>Acid</td>
<td>Resistant to spills of dilute acid. Avoid contact</td>
</tr>
<tr>
<td>Alkali</td>
<td></td>
<td>Resistant to spills of dilute alkali. Avoid contact</td>
</tr>
</tbody>
</table>


**Typical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gloss Level</td>
<td>25 - 100%</td>
</tr>
<tr>
<td>Shelf Life</td>
<td>12 months when stored below 25°C/dry conditions</td>
</tr>
<tr>
<td>V.O.C Level</td>
<td>Nil</td>
</tr>
<tr>
<td>Colour</td>
<td>A range of stock and made to order solid &amp; pearl colours</td>
</tr>
<tr>
<td>Meets GBCA VOC Requirement?</td>
<td>Yes. Dulux Powder Coatings:</td>
</tr>
<tr>
<td></td>
<td>• Contain no harmful volatile organic solvents</td>
</tr>
<tr>
<td></td>
<td>• Free of heavy metal pigments such as lead, cadmium, arsenic &amp; mercury</td>
</tr>
<tr>
<td></td>
<td>• Proven low temperature curing technology</td>
</tr>
<tr>
<td></td>
<td>• Produced with stringent Safety, Health &amp; Environmental policies and standards</td>
</tr>
<tr>
<td></td>
<td>• Developed with consideration of life cycle analysis, to guide our suppliers and the materials we use</td>
</tr>
<tr>
<td></td>
<td>• Manufactured in facilities where significant energy and resources employed in production, are measured with aggressive reduction targets in place</td>
</tr>
<tr>
<td></td>
<td>• Produced and used with minimal waste</td>
</tr>
<tr>
<td>Consequently, Dulux ® Powder Coatings are a prime consideration for projects where air quality standards have been set, such as 4, 5 &amp; 6 Green Star Rating Projects.</td>
<td></td>
</tr>
</tbody>
</table>

**Film Build (microns)**

| Microns | Recommended 80 micrometres. range is 60 – 100 micrometres |

**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

**Cure Schedule**

<table>
<thead>
<tr>
<th>Metal Temperature (°C)</th>
<th>Time (minutes)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>160</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>180</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>200</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

**Application Guide**

**Surface Preparation**

- Surfaces should be prepared according to AS1627.6-2003 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 or green chromate/phosphate (refer AS1627.6-2003)
  - 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**

- 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. Box feeders are not suitable for the application of pearlescent and metallic finishes.
- 2) Apply by electrostatic spray.
- 3) Cure as per recommendations outlined above.
- Metal temperatures in excess of 210°C should be avoided due to the possibility of colour change or thermal degradation of the polymer.
- 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.

Electrostatic spray

NOTES:

- * 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 - 10 sqm/kg corresponds to 80 microns 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.
Care And Maintenance

Reference should be made to AAMA 609 and 612-03 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, Ethyl Alcohol, Isopropanol.

Health And Safety

<table>
<thead>
<tr>
<th>MSDS Number</th>
<th>Safety Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>000000023210</td>
<td>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&amp;E information. For detailed information, refer to product label and the current Safety Data Sheet (No. 000000023210) available through Sales and Customer Service Offices. Phone: Australia: 13 24 99 New Zealand: +64 9 441 8242</td>
</tr>
</tbody>
</table>

In the case of emergency, please call 1800 033 111

Transport And Storage

<table>
<thead>
<tr>
<th>Package Weight</th>
<th>Shipment Name</th>
<th>Dangerous Goods Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>20kg</td>
<td>Not dangerous goods. No special transport requirements</td>
<td></td>
</tr>
<tr>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

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