

# CONGARD®

## Single Pack Alkyd Primer-Finish

PC 640

- FEATURES**
- SELF PRIMING TOPCOAT
  - GLOSS FINISH
  - CONTAINS ZINC PHOSPHATE
  - RAPID DRYING
  - TINTABLE – AVAILABLE IN OVER 5,000 COLOURS

**USES** CONGARD® is a single pack, air drying, high build coating based on a modified alkyd resin, for the protection of interior and exterior steel. CONGARD® is suitable for application direct to suitably prepared substrates and being a fast-drying primer-finish, is ideal for maintenance or repair work. CONGARD® would typically used in mild environments including structural frames and trusses for factories and warehouses, farm or heavy engineering equipment, and shipping containers. CONGARD® is tintable to many colours in the Dulux® and AS2700 colour ranges.

### SPECIFICATIONS

#### RESISTANCE GUIDE

|                        |   |                 |  |
|------------------------|---|-----------------|--|
| <b>WEATHERABILITY</b>  | Will chalk on exterior exposure. Neither yellowing nor chalking detracts from the protective properties of the coating. | <b>SOLVENTS</b> | Resists alcohol, mineral turpentine and similar solvents. Esters, ketones, ethers, chlorinated solvents or similar strong solvents are liable to attack the coating. |
| <b>HEAT RESISTANCE</b> | Up to 65°C dry heat   | <b>WATER</b>    | Resists rain and condensation. Not suitable for permanently damp or immersed exposure.   |
| <b>SALTS</b>           | Unaffected by splash and spillage of neutral salt solutions   | <b>ALKALIS</b>  | Not recommended where fumes, splash or spillage may occur.   |
| <b>ACIDS</b>           | Not recommended where fumes, splash or spillage may occur   | <b>ABRASION</b> | Good when fully cured  |

#### TYPICAL PROPERTIES AND APPLICATION DATA

|                  |                                 |                   |                             |   |      |             |
|------------------|---------------------------------|-------------------|-----------------------------|---|------|-------------|
| CLASSIFICATION   | Modified alkyd primer-finish    |                   | APPLICATION CONDITIONS      |   |      |             |
| FINISH           | Gloss                           |                   |                             | Min   | Max  |             |
| COLOUR           | A wide range of tinted colours. |                   | Air Temp.                   | 10°C  | 40°C |             |
|                  |                                 |                   | Substrate Temp.             | 10°C  | 40°C |             |
|                  |                                 |                   | Relative Humidity           |   | 85%  |             |
| COMPONENTS       | One                             |                   | COATING THICKNESS (MICRONS) |   |      |             |
| VOLUME SOLIDS    | 38% (White)                     |                   |                             | Min   | Max  | Recommended |
| VOC LEVEL        | <540 g/L (White, untinted)      |                   | Wet film per coat (µm)      | 160   | 240  | 200         |
| FLASH POINT      | 25°C                            |                   | Dry film per coat (µm)      | 60  | 90   | 75          |
| POT LIFE         | Not applicable                  |                   |                             |   |      |             |
| MIXING RATIO V/V | Single pack                     |                   |                             |   |      |             |
| THINNER – BRUSH  | 965-63020                       | Dulux® CR Reducer | SUITABLE SUBSTRATES         | Suitably prepared substrates including blast cleaned, hand cleaned or power tool cleaned steel. |      |             |
| PRODUCT CODE     | 321-63001                       | White/Light Base  | PRIMERS                     | Not required  |      |             |
|                  | 321-63002                       | Deep Base         | APPLICATION METHODS         | Conventional, airless spray or air assisted spray   |      |             |
|                  | 321-63003                       | Clear Base        |                             |   |      |             |
|                  | 321-81567                       | Black             |                             |   |      |             |
|                  | 321-39141                       | Golden Yellow     |                             |   |      |             |

#### DRYING CHARACTERISTICS AT 75 µm DRY FILM THICKNESS\*

| Temperature | Humidity | Touch      | Handle  | Full Cure | OVERCOAT         |                  |
|-------------|----------|------------|---------|-----------|------------------|------------------|
|             |          |            |         |           | Min <sup>1</sup> | Max <sup>1</sup> |
| 25° C       | 50%      | 15 Minutes | 2 Hours | 7 Days    | 4 Hours          | 8 Hours          |

\* These figures are a guide only, as ventilation, film thickness, humidity, thinning and other factors will influence the rate of drying.

<sup>1</sup> Overcoating can occur 4 hours after the initial application or before 8 hours. Failing to observe these limits may result in "frying" or wrinkling. If in doubt, test a small inconspicuous area first.

## SPREADING RATE ASSUMING NO LOSSES

**5.0 square metres per litre equals 75 µm dry film thickness**

NOTE: Practical spreading rates will vary depending on such factors as application method, ambient conditions, surface porosity and roughness.

# CONGARD®

## TYPICAL SYSTEMS

This is a guide only and not to be used as a specification. Your specific project needs must be discussed with a Dulux Protective Coatings Consultant.

| SURFACE | ENVIRONMENT                             | PREPARATION GUIDE  | SYSTEM   | DFT (µm)       |
|---------|---|--|--|----------------|
| STEEL   | Mild corrosivity<br>(AS2312.1 Cat C1-2) | Power tool clean AS1627.2 St 3 or<br>Abrasive blast AS1627.4 Class 2 | 1 <sup>st</sup> Coat<br>Congard®<br>2 <sup>nd</sup> Coat<br>Congard® | 75 µm<br>75 µm |
| STEEL   | Mild corrosivity<br>(AS2312.1 Cat C1)   | Power tool clean AS1627.2 St 3 or<br>Abrasive blast AS1627.4 Class 2 | 1 <sup>st</sup> Coat<br>Congard®                                     | 75 µm          |

NOTE: If application is by brush or roller, additional coats will be necessary to achieve the minimum DFT and full opacity

|  |   |  |                                  |   |                                   |                                   |  |             |                    |               |                      |  |                                      |                  |                          |     |           |         |             |         |  |  |  |                        |   |     |           |         |             |               |                    |                   |                                 |                   |                              |                                  |                                  |                                   |                                   |
|--|---|--|----------------------------------|---|-----------------------------------|-----------------------------------|--|-------------|--------------------|---------------|----------------------|--|--------------------------------------|------------------|--------------------------|-----|-----------|---------|-------------|---------|--|--|--|------------------------|---|-----|-----------|---------|-------------|---------------|--------------------|-------------------|---------------------------------|-------------------|------------------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|
| SURFACE PREPARATION                            | <p><b>Steel:</b> Round off all rough welds, sharp edges and remove weld spatter. Remove grease, oil and other contaminants in accordance with AS1627.1. Degrease with Gamlen CA No. 1 (a free-rinsing, alkaline detergent) according to the manufacturer's written instructions and all safety warnings. Abrasive blast clean to a minimum of AS1627.4 Class 2.5 using ISO8501-1 as a pictorial guide.</p> <p><b>Steel where abrasive blast cleaning is not viable:</b> Rust, mill scale, oxide deposits and *loose aged paint films on metal surfaces must be removed by power tool cleaning according to AS1627.2, using ISO 8501-1 as a pictorial guide for acceptance to St3 depending upon rust grade present at start of works. Coating performance is proportional to the degree of surface preparation</p>  |  |                                  |   |                                   |                                   |  |             |                    |               |                      |  |                                      |                  |                          |     |           |         |             |         |  |  |  |                        |   |     |           |         |             |               |                    |                   |                                 |                   |                              |                                  |                                  |                                   |                                   |
| APPLICATION                                    | Mix can thoroughly with a power mixer until the contents are uniform. Ensure product has been tinted to the correct colour before use. DULUX® ASSUMES NO RESPONSIBILITY FOR THE APPLICATION OF INCORRECT COLOUR. Box all containers before use to ensure colour consistency. Remix before application.  |  |                                  |   |                                   |                                   |  |             |                    |               |                      |  |                                      |                  |                          |     |           |         |             |         |  |  |  |                        |   |     |           |         |             |               |                    |                   |                                 |                   |                              |                                  |                                  |                                   |                                   |
| BRUSH/ROLLER                                   | Recommended for small touch up areas only. When brushing and rolling additional coats may be required to obtain the recommended film thickness. Thin 100 ml/litre or 10% of Dulux® CR Reducer (965-63020) to improve application properties. Brush: use high quality natural or synthetic bristle brushes. Roller: use 10 mm to 12 mm synthetic woven nap covers.   |  |                                  |   |                                   |                                   |  |             |                    |               |                      |  |                                      |                  |                          |     |           |         |             |         |  |  |  |                        |   |     |           |         |             |               |                    |                   |                                 |                   |                              |                                  |                                  |                                   |                                   |
| APPLICATION EQUIPMENT                          | <p><b>Airless Spray:</b> 60:1 spray pump or equivalent. Thinning is not normally required but up to 100 ml/litre or 10% of Dulux® CR Reducer (965-63020) may be added to aid application. Apply in multiple wet coats overlapping each pass 50%.</p> <table><tr><td>Tip Orifice</td><td>Atomising Pressure</td><td>Mat'l Hose ID</td><td>Pump Manifold Filter</td></tr><tr><td>0.009" – 0.013"<br/>(228 - 330 microns)</td><td>3,000 – 3,500 psi<br/>(207 – 241 bar)</td><td>3/8"<br/>(9.5 mm)</td><td>60 mesh<br/>(250 microns)</td></tr></table> <p><b>NOTE:</b> A 1.8 metre x ¼" (6.35mm) whip hose is allowed at the end of the material hose for greater ease of application.</p> <p><b>Air-Assisted Airless Spray:</b> Using the Airless Spray setup above, the following modifications can be made to use an air-assisted gun. Install an inline air supply tee fitting, adapter and quick connect to the air supply tee. To the air-assisted airline regulator add airline quick connections to either side of the air-assisted spray regulator. To one connection, connect the air regulator to the air supply tee quick connect. Connect the 5/16" airline to the quick connect fitting coming off the other side of the air-assisted regulator.</p> <table><tr><td>Gun</td><td>Spray Tip</td><td>Air Cap</td><td>Supply Line</td><td>Airline</td></tr><tr><td>Graco® Perform AA<br/>5000 RAC or<br/>equivalent</td><td>Graco® Part No.<br/>26B517<br/>or equivalent</td><td>Graco® Part No.<br/>192318<br/>or equivalent</td><td>Existing airless setup</td><td>5/16" (7.9mm) from<br/>the air-assisted<br/>regulator</td></tr></table> <p><b>Air Spray:</b> Graco® Triton 308 or equivalent. Thinning is not normally required but up to 100 ml/litre or 10% of Dulux® CR Reducer (965-63020) may be added to aid application. Apply in multiple wet coats overlapping each pass 50%.</p> <table><tr><td>Gun</td><td>Fluid Tip</td><td>Air Cap</td><td>Air Hose ID</td><td>Mat'l Hose ID</td><td>Atomising Pressure</td><td>Material Pressure</td></tr><tr><td>Graco® Air Pro<br/>or Equivalent</td><td>1.4 mm<br/>(0.055)</td><td>Graco®<br/>Part No.<br/>192318</td><td>5/16" or 3/8"<br/>(7.9 or 9.5 mm)</td><td>3/8" or 1/2"<br/>(9.5 or 12.7 mm)</td><td>55 to 60 PSI<br/>(3.79 – 4.14 Bar)</td><td>15 to 20 PSI<br/>(1.03 – 1.38 Bar)</td></tr></table> <p><b>NOTE:</b> Low temperatures and/or long hose lengths require higher material pressure.</p> |  |                                  |   |                                   |                                   |  | Tip Orifice | Atomising Pressure | Mat'l Hose ID | Pump Manifold Filter | 0.009" – 0.013"<br>(228 - 330 microns) | 3,000 – 3,500 psi<br>(207 – 241 bar) | 3/8"<br>(9.5 mm) | 60 mesh<br>(250 microns) | Gun | Spray Tip | Air Cap | Supply Line | Airline | Graco® Perform AA<br>5000 RAC or<br>equivalent | Graco® Part No.<br>26B517<br>or equivalent | Graco® Part No.<br>192318<br>or equivalent | Existing airless setup | 5/16" (7.9mm) from<br>the air-assisted<br>regulator | Gun | Fluid Tip | Air Cap | Air Hose ID | Mat'l Hose ID | Atomising Pressure | Material Pressure | Graco® Air Pro<br>or Equivalent | 1.4 mm<br>(0.055) | Graco®<br>Part No.<br>192318 | 5/16" or 3/8"<br>(7.9 or 9.5 mm) | 3/8" or 1/2"<br>(9.5 or 12.7 mm) | 55 to 60 PSI<br>(3.79 – 4.14 Bar) | 15 to 20 PSI<br>(1.03 – 1.38 Bar) |
| Tip Orifice                                    | Atomising Pressure  | Mat'l Hose ID                              | Pump Manifold Filter             |   |                                   |                                   |  |             |                    |               |                      |  |                                      |                  |                          |     |           |         |             |         |  |  |  |                        |   |     |           |         |             |               |                    |                   |                                 |                   |                              |                                  |                                  |                                   |                                   |
| 0.009" – 0.013"<br>(228 - 330 microns)         | 3,000 – 3,500 psi<br>(207 – 241 bar)  | 3/8"<br>(9.5 mm)                           | 60 mesh<br>(250 microns)         |   |                                   |                                   |  |             |                    |               |                      |  |                                      |                  |                          |     |           |         |             |         |  |  |  |                        |   |     |           |         |             |               |                    |                   |                                 |                   |                              |                                  |                                  |                                   |                                   |
| Gun  | Spray Tip   | Air Cap                                    | Supply Line                      | Airline   |                                   |                                   |  |             |                    |               |                      |  |                                      |                  |                          |     |           |         |             |         |  |  |  |                        |   |     |           |         |             |               |                    |                   |                                 |                   |                              |                                  |                                  |                                   |                                   |
| Graco® Perform AA<br>5000 RAC or<br>equivalent | Graco® Part No.<br>26B517<br>or equivalent  | Graco® Part No.<br>192318<br>or equivalent | Existing airless setup           | 5/16" (7.9mm) from<br>the air-assisted<br>regulator |                                   |                                   |  |             |                    |               |                      |  |                                      |                  |                          |     |           |         |             |         |  |  |  |                        |   |     |           |         |             |               |                    |                   |                                 |                   |                              |                                  |                                  |                                   |                                   |
| Gun  | Fluid Tip   | Air Cap                                    | Air Hose ID                      | Mat'l Hose ID                                       | Atomising Pressure                | Material Pressure                 |  |             |                    |               |                      |  |                                      |                  |                          |     |           |         |             |         |  |  |  |                        |   |     |           |         |             |               |                    |                   |                                 |                   |                              |                                  |                                  |                                   |                                   |
| Graco® Air Pro<br>or Equivalent                | 1.4 mm<br>(0.055)   | Graco®<br>Part No.<br>192318               | 5/16" or 3/8"<br>(7.9 or 9.5 mm) | 3/8" or 1/2"<br>(9.5 or 12.7 mm)                    | 55 to 60 PSI<br>(3.79 – 4.14 Bar) | 15 to 20 PSI<br>(1.03 – 1.38 Bar) |  |             |                    |               |                      |  |                                      |                  |                          |     |           |         |             |         |  |  |  |                        |   |     |           |         |             |               |                    |                   |                                 |                   |                              |                                  |                                  |                                   |                                   |
| PRECAUTIONS                                    | <p>This is an industrial product designed for use by experienced Protective Coating applicators. Where conditions may require variation from the recommendations on this Product Data Sheet contact your nearest Dulux® Protective Coatings Consultant for advice prior to painting. Do not apply in conditions outside the parameters stated in this document without the express written consent of Dulux® Protective Coatings Australia. Do not apply at temperatures below 10°C. Do not apply at relative humidity above 85% or when the surface is less than 3°C above the dewpoint. Do not overcoat before the minimum overcoat interval or wrinkling may occur. Allow longer dry times under cold conditions. Overcoating can occur 4 hours after the initial application or before 8 hours. Failing to observe these limits may result in "frying" or wrinkling. If in doubt test a small inconspicuous area first. Check a small area before commencing recoat work. Do not apply over scale bearing steel. Do not apply on structures subject to sustained surface temperatures above 65°C or where spillage of strong solvent or oils may occur. Do not exceed a spreading rate of 5.0 sq. meters per litre. Abrasive blast cleaned surfaces must be primed within 4 hours. This product must not be topcoated with two pack heavy-duty coatings. Do not apply directly on galvanized iron or zinc rich coatings.</p>  |  |                                  |   |                                   |                                   |  |             |                    |               |                      |  |                                      |                  |                          |     |           |         |             |         |  |  |  |                        |   |     |           |         |             |               |                    |                   |                                 |                   |                              |                                  |                                  |                                   |                                   |
| CLEAN UP                                       | Clean all equipment with Dulux® CR Reducer (965-63020) immediately after use.   |  |                                  |   |                                   |                                   |  |             |                    |               |                      |  |                                      |                  |                          |     |           |         |             |         |  |  |  |                        |   |     |           |         |             |               |                    |                   |                                 |                   |                              |                                  |                                  |                                   |                                   |
| OVERCOATING                                    | Assess the condition of aged coatings and the viability of an overcoat system in accordance with the latest versions of SSPC TU No.3, ASTM D 5064, and ASTM D 5065. Consult your local Dulux® Protective Coatings Consultant for specific surface preparation and coating system recommendations.   |  |                                  |   |                                   |                                   |  |             |                    |               |                      |  |                                      |                  |                          |     |           |         |             |         |  |  |  |                        |   |     |           |         |             |               |                    |                   |                                 |                   |                              |                                  |                                  |                                   |                                   |
| SAFETY PRECAUTIONS                             | Read Data Sheet, SAFETY DATA SHEET and any precautions on container labels. SAFETY DATA SHEET is available from Customer Service (13 23 77) or <a href="http://www.duluxprotectivecoatings.com.au">www.duluxprotectivecoatings.com.au</a>   |  |                                  |   |                                   |                                   |  |             |                    |               |                      |  |                                      |                  |                          |     |           |         |             |         |  |  |  |                        |   |     |           |         |             |               |                    |                   |                                 |                   |                              |                                  |                                  |                                   |                                   |

|                     |  |
|---------------------|--|
| <b>STORAGE</b>      | Store as required for a flammable liquid Class 3 in a bunded area under cover. Store in well-ventilated area away from sources of heat or ignition. Keep containers closed at all times.   |
| <b>HANDLING</b>     | As with any chemical, ingestion, inhalation and prolonged or repeated skin contact should be avoided by good occupational work practice. Eye protection approved to AS1337 should be worn where there is a risk of splashes entering the eyes. Always wash hands before smoking, eating, drinking or using the toilet. |
| <b>USING</b>        | Use with good ventilation and avoid inhalation of spray mists and fumes. If risk of inhalation of spray mists exists, wear combined organic vapour/particulate respirator. When spray painting, users must comply with their respective State Spray Painting Regulations.  |
| <b>FLAMMABILITY</b> | This product is flammable. All sources of ignition must be eliminated in, or near the working area. DO NOT SMOKE. Fight fire with foam, CO <sub>2</sub> or dry chemical powder. On burning will emit toxic fumes.  |
| <b>WELDING</b>      | Avoid inhalation of fumes if welding surfaces coated with this paint. Grind off coating before welding.  |

| COMPANY INFORMATION  |   | PACKAGING, TRANSPORT AND STORAGE      |                 |
|--|---|---------------------------------------|-----------------|
| Dulux Protective Coatings is a division of:  |   | PACKAGING Available in 15 litre packs |                 |
| DuluxGroup (Australia) Pty Ltd<br>1956 Dandenong Road, Clayton 3168<br>A.B.N. 67 000 049 427 | DuluxGroup (New Zealand) Pty Ltd<br>150 Hutt Park Road, Lower Hutt, NZ<br>A.B.N. 55 133 404 118 | TRANSPORTATION WEIGHT                 | 1.23 kg/litre   |
|  |   | DANGEROUS GOODS                       | Class 3 UN 1263 |
| Dulux and Congard are registered trademarks of DuluxGroup (Australia) Pty Ltd.               |   |                                       |                 |
| Graco is a registered trademark of Graco Inc.  |   |                                       |                 |

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