

# LUXATHANE<sup>®</sup> DTM

## Direct to Prepared Metal Polyurethane Finish

**PC 401**

- FEATURES**
- CONTAINS CORROSION INHIBITING PIGMENT ZINC PHOSPHATE
  - INCREASED PRODUCTIVITY, NO PRIMER REQUIRED IN MILD CORROSIVE CONDITIONS
  - VERY GOOD UV RESISTANCE AND GLOSS RETENTION
  - GOOD DRYING AND RECOAT PROPERTIES
  - TINTABLE – AVAILABLE IN OVER 2,500 COLOURS
  - GLOSS FINISH

**USES** LUXATHANE<sup>®</sup> DTM is a two-component acrylic polyurethane that incorporates the rust inhibitive pigment, zinc phosphate, allowing for direct application to abrasive blast or power tool cleaned steel. LUXATHANE<sup>®</sup> DTM delivers both corrosion protection and an attractive decorative gloss finish. The high build properties of LUXATHANE<sup>®</sup> DTM direct to metal surfaces, without the use of a primer, allows for the fast coating of steel that is subject to sheltered or mild (C1-C3) corrosive environments.

Typical areas of application of LUXATHANE<sup>®</sup> DTM include structural frames and trusses for factories and warehouses, farm and heavy engineering equipment.

LUXATHANE<sup>®</sup> Accelerator is available for use with Standard Hardener to promote faster drying.

**SPECIFICATIONS**
**RESISTANCE GUIDE**

|                        |   |                 |   |
|------------------------|---|-----------------|---|
| <b>WEATHERABILITY</b>  | Very good gloss and colour retention on exterior exposure   | <b>SOLVENTS</b> | Unaffected by splash and spillage of common alcohols, aliphatic and aromatic hydrocarbons, esters and ketones |
| <b>HEAT RESISTANCE</b> | Up to 120°C dry heat  | <b>WATER</b>    | Excellent resistance to fresh and salt water but not suitable for immersion                                   |
| <b>SALTS</b>           | Unaffected by splash and spillage of most salt solutions    | <b>ALKALIS</b>  | Good resistance to splash and spillage of most common alkalis   |
| <b>ACIDS</b>           | Good resistance to splash and spillage of most common acids | <b>ABRASION</b> | Very good when fully cured  |

**TYPICAL PROPERTIES AND APPLICATION DATA**

|                         |  |                    |                                    |  |      |             |
|-------------------------|--|--------------------|------------------------------------|--|------|-------------|
| <b>CLASSIFICATION</b>   | Two pack acrylic polyurethane coating          |                    | <b>APPLICATION CONDITIONS</b>      |  |      |             |
| <b>FINISH</b>           | Gloss  |                    |                                    | Min  | Max  |             |
| <b>COLOUR</b>           | White and an extensive range of tinted colours |                    | <b>Air Temp.</b>                   | 10°C   | 40°C |             |
| <b>COMPONENTS</b>       | Two  |                    | <b>Substrate Temp.</b>             | 10°C   | 40°C |             |
| <b>VOLUME SOLIDS</b>    | 55% (White)                                    |                    | <b>Relative Humidity</b>           |  | 85%  |             |
| <b>VOC LEVEL</b>        | <430 g/litre (White, untinted)                 |                    | <b>COATING THICKNESS (MICRONS)</b> |  |      |             |
| <b>FLASH POINT</b>      | >23°C  |                    |                                    | Min  | Max  | Recommended |
| <b>POT LIFE</b>         | 5 hours (4 litre kit, 25°C)                    |                    | <b>Wet film per coat (µm)</b>      | 125  | 180  | 165         |
| <b>MIXING RATIO V/V</b> | Part A : 4                                     | Part B : 1         | <b>Dry film per coat (µm)</b>      | 70   | 100  | 90          |
| <b>THINNER – BRUSH</b>  | 965-63023                                      | Urethane Thinner   | <b>SUITABLE SUBSTRATES</b>         | Abrasive blast cleaned, hand cleaned or power tool cleaned steel |      |             |
| <b>THINNER – SPRAY</b>  | 965-63023                                      | Urethane Thinner   | <b>PRIMERS</b>                     | N/A  |      |             |
| <b>PRODUCT CODE</b>     | 727-63313                                      | White              | <b>TOPCOATS</b>                    | N/A  |      |             |
|                         | 727-39141                                      | Golden Yellow      | <b>APPLICATION METHODS</b>         | Conventional, HVLP, airless spray or air assisted spray          |      |             |
|                         | 727-63001                                      | Light Base         |                                    |  |      |             |
|                         | 727-63003                                      | Clear Base         |                                    |  |      |             |
|                         | 976-H0165                                      | Standard Hardener  |                                    |  |      |             |
|                         | 976-H0229                                      | Part C Accelerator |                                    |  |      |             |

**DRYING CHARACTERISTICS AT 90 µm DRY FILM THICKNESS**

| Temperature | Humidity | Touch      | Handle   | Full Cure | OVERCOAT |          |
|-------------|----------|------------|----------|-----------|----------|----------|
|             |          |            |          |           | Min      | Max*     |
| 10° C       | 50%      | 75 Minutes | 13 Hours | 7 Days    | 13 Hours | Extended |
| 15° C       | 50%      | 60 Minutes | 10 Hours | 7 Days    | 10 Hours | Extended |
| 25° C       | 50%      | 30 Minutes | 5 Hours  | 7 Days    | 5 Hours  | Extended |

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

**SPREADING RATE**

ASSUMING NO LOSSES

**6.1 square metres per litre equals 90 µm dry film thickness**

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

# LUXATHANE® DTM

## STANDARD HARDENER WITH ACCELERATOR (PART C)

MIXING RATIO | PART C: 1 DOSE PER 4 LITRE KIT

### COATING THICKNESS (MICRONS)

|                        | Min | Max | Recommended |
|------------------------|-----|-----|-------------|
| Wet film per coat (µm) | 130 | 185 | 165         |
| Dry film per coat (µm) | 70  | 100 | 90          |

### APPLICATION CONDITIONS

|                               | Min  | Max  |
|-------------------------------|------|------|
| Air Temperature               | 10°C | 40°C |
| Substrate Surface Temperature | 10°C | 40°C |
| Relative Humidity             |      | 85%  |

|                  |                             |
|------------------|-----------------------------|
| SOLIDS BY VOLUME | 54% (White)                 |
| VOC LEVEL        | <440 g/L (White)            |
| POT LIFE         | 5 Hours (4 Litre kit, 25°C) |

## DRYING CHARACTERISTICS AT 50 µm DRY FILM THICKNESS\*

| Temperature | Humidity | Touch      | Handle  | Full Cure | OVERCOAT* |          |
|-------------|----------|------------|---------|-----------|-----------|----------|
|             |          |            |         |           | Min       | Max      |
| 15° C       | 50%      | 50 minutes | 6 Hours | 7 Days    | 6 Hours   | Extended |
| 25° C       | 50%      | 25 minutes | 4 Hours | 7 Days    | 4 Hours   | Extended |

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

### SPREADING RATE

with Accelerator  
assuming no losses

**6.0 square metres per litre equals 90 µm dry film thickness**

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

## 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     | Low-medium corrosivity (AS2312.1 Cat C1-3) | Abrasive blast AS1627.4 Class 2.5 or Power tool clean AS1627.2 St 3 | 1 <sup>st</sup> Coat Luxathane® DTM | 100 µm   |
| ALUMINIUM | Exterior/Interior                          | Clean, degrease and abrade  | 1 <sup>st</sup> Coat Luxathane® DTM | 90 µm    |

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

# LUXATHANE® DTM

|                            |   |                            |               |                |  |                         |                           |  |                  |                            |  |      |                   |
|----------------------------|---|----------------------------|---------------|----------------|--|-------------------------|---------------------------|--|------------------|----------------------------|--|------|-------------------|
| <b>SURFACE PREPARATION</b> | <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 using Gamlen CA 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 with a blast profile of 40 – 70 microns. Remove all dust brushing or vacuum.</p> <p><b>Non-ferrous metals:</b> Round off all sharp edges. Degrease in accordance with AS1627.1. Whip blast with fine non-metallic media to provide a key. Remove all dust with compressed air. Alternatively, degrease and abrade the surface with a non-metallic abrasive pad wetted with Gamlen CA 1 and water. Rinse thoroughly with fresh potable water.</p>  |                            |               |                |  |                         |                           |  |                  |                            |  |      |                   |
| <b>APPLICATION</b>         | Mix each can thoroughly using a power mixer until the contents are uniform. Ensure bases have been tinted to the correct colour before use. DULUX® ASSUMES NO RESPONSIBILITY FOR THE APPLICATION OF INCORRECT COLOUR. Mix the contents of both packs together thoroughly with a power mixer and let stand for 10 minutes. Box all containers before use to ensure colour consistency. Remix thoroughly before application.  |                            |               |                |  |                         |                           |  |                  |                            |  |      |                   |
| <b>BRUSH/ROLLER</b>        | Suitable for small areas only. Thin with up to 100 ml/litre with Dulux® Urethane Thinner (965-63023) to aid application. When brushing and rolling additional coats may be required to attain the specified thickness.  |                            |               |                |  |                         |                           |  |                  |                            |  |      |                   |
| <b>CONVENTIONAL SPRAY</b>  | Thin up to 150ml/litre with Dulux® Urethane Thinner (965-63023) to aid atomisation. Apply in multiple wet coats overlapping each pass 50%   |                            |               |                |  |                         |                           |  |                  |                            |  |      |                   |
|                            | <table border="0"> <tr> <td>Typical Set-up</td> <td>Graco AirPro:</td> <td>1.8mm (239543)</td> </tr> <tr> <td></td> <td>Pressure at Triton 308:</td> <td>65-100 kPa (10-15 p.s.i.)</td> </tr> <tr> <td></td> <td>Pressure at Gun:</td> <td>385-420 kPa (55-60 p.s.i.)</td> </tr> <tr> <td></td> <td>HVLP</td> <td>1.4 Fluid Tip Set</td> </tr> </table>   | Typical Set-up             | Graco AirPro: | 1.8mm (239543) |  | Pressure at Triton 308: | 65-100 kPa (10-15 p.s.i.) |  | Pressure at Gun: | 385-420 kPa (55-60 p.s.i.) |  | HVLP | 1.4 Fluid Tip Set |
| Typical Set-up             | Graco AirPro:   | 1.8mm (239543)             |               |                |  |                         |                           |  |                  |                            |  |      |                   |
|                            | Pressure at Triton 308:   | 65-100 kPa (10-15 p.s.i.)  |               |                |  |                         |                           |  |                  |                            |  |      |                   |
|                            | Pressure at Gun:  | 385-420 kPa (55-60 p.s.i.) |               |                |  |                         |                           |  |                  |                            |  |      |                   |
|                            | HVLP  | 1.4 Fluid Tip Set          |               |                |  |                         |                           |  |                  |                            |  |      |                   |
| <b>AIRLESS SPRAY</b>       | Standard airless spray equipment such as a Graco Xtreme 30:1 with a fluid tip of 15 thou (0.38mm) and an air supply capable of delivering 550-690 kPa (80-100 p.s.i.) at the pump. Thinning is not normally required but up to 100 ml/litre of Dulux® Urethane Thinner (965-63023) may be added to aid application.   |                            |               |                |  |                         |                           |  |                  |                            |  |      |                   |
| <b>PRECAUTIONS</b>         | 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® Consultant for advice prior to painting. Do not apply in conditions outside the parameters stated in this document without the written consent of Dulux® Australia. Freshly mixed material must not be added to material that has been mixed for some time. The rate of cure is dependent upon temperature. Do not apply at temperatures below 5°C. Do not apply at relative humidity above 85% or when the surface is less than 3°C above the dewpoint. Ensure you read and understand the safety precautions on the Material Safety Data Sheets for the two components before using. The recommended thinner MUST be used as some solvents react with the isocyanate hardener seriously degrading the life of the coating. Under no circumstances should water or non-recommended thinner be allowed to contaminate the product. In hot weather use DUTHIN® 040 (965-42166) to improve flow and to reduce dry spray. Use of Part C Luxathane® Accelerator may result in different gloss level and appearance when compared with result without Part C Luxathane® Accelerator. Use only within the allowable temperature ranges quoted above. |                            |               |                |  |                         |                           |  |                  |                            |  |      |                   |
| <b>CLEAN UP</b>            | Clean all equipment with Dulux® Urethane Thinner (965-63023) immediately after use.   |                            |               |                |  |                         |                           |  |                  |                            |  |      |                   |
| <b>OVERCOATING</b>         | Degrease with Gamlen CA 1 according to the data sheet. Test adhesion of existing coating by standard cross hatch adhesion test. If the coating fails, remove it. High-pressure water wash at 8.3 to 10.3 MPa (1,200-1,500 p.s.i.) to remove chalk and dust. Abrade surface to provide a good key for the new coating.   |                            |               |                |  |                         |                           |  |                  |                            |  |      |                   |
| <b>SAFETY PRECAUTIONS</b>  | <b>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>  |                            |               |                |  |                         |                           |  |                  |                            |  |      |                   |
| <b>STORAGE</b>             | Store as required for a flammable liquid Class 3 in a bunded area under cover. Store in a dry, well-ventilated area away from sources of heat or ignition. Keep containers closed at all times. Avoid moisture contamination.   |                            |               |                |  |                         |                           |  |                  |                            |  |      |                   |
| <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 must be worn while handling and using. Always wash hands before smoking, eating, drinking or using the toilet. Isocyanate in the hardener reacts with water to produce gas. If a closed container shows signs of internal pressure, cover it completely with a cloth and remove the lid slowly to prevent splashing or violent expulsion of the lid.   |                            |               |                |  |                         |                           |  |                  |                            |  |      |                   |
| <b>USING</b>               | Use with good ventilation and avoid inhalation of spray mists and fumes. When spraying, wear a positive-pressure, air-supplied respirator. Users must comply with the provisions of the respective State Spray Painting Regulations at all times.   |                            |               |                |  |                         |                           |  |                  |                            |  |      |                   |
| <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 a division of |                                    | PACKAGING                        | Available in 4 litre packs            |
| DuluxGroup (Australia) Pty Ltd          | DuluxGroup (New Zealand) Pty Ltd   | TRANSPORTATION WEIGHT            | 1.28 kg/litre (Average of components) |
| 1956 Dandenong Road, Clayton 3168       | 150 Hutt Park Road, Lower Hutt, NZ | DANGEROUS GOODS                  | Part A: Class 3 UN 1263               |
| A.B.N. 67 000 049 427                   | A.B.N. 55 133 404 118              |                                  | Part B: Class 3 UN 1263               |

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