

# DURETHANE<sup>®</sup>

## Polyurethane Finish

**PC 410**

- FEATURES**
- OUTSTANDING CHEMICAL RESISTANCE
  - RESISTS MOISTURE, GREASE, DETERGENTS AND CHEMICALS
  - HIGH GLOSS RETENTION
  - NON YELLOWING
  - EXCELLENT ADHESION AND ABRASION RESISTANCE

**USES** DURETHANE<sup>®</sup> is a non-yellowing polyurethane high gloss and flat finish with outstanding chemical and abrasion resistance and exterior durability. When used in conjunction with epoxy primers it is an excellent system for chemical and corrosion resistance.

Can be used for the protection and decoration of interior walls, ceilings and trim in areas of high demand such as commercial kitchens, passageways, corridors, hospital operating theatres, hotels and food processing plants. It can be also used exterior on curtain walls, concrete and masonry, also with suitable undercoating systems in marine, transport and chemical industries. Ideal topcoat for use in anti-graffiti systems.

### SPECIFICATIONS

#### RESISTANCE GUIDE

<b>HEAT RESISTANCE</b>	Up to 105°C dry heat.	<b>ALKALIS</b>	Excellent resistance to splash and spillage of most common alkalis.
<b>WEATHERABILITY</b>	Excellent gloss and colour retention on exterior exposure.	<b>SALTS</b>	Excellent resistance to neutral and alkali salts.
<b>SOLVENTS</b>	Unaffected by splash and spillage of common alcohols, aliphatic and aromatic hydrocarbons, esters and ketones.	<b>WATER</b>	Excellent resistance to fresh and salt water.
<b>ACIDS</b>	Suitable for splash and spillage exposure to acid solutions.	<b>ABRASION</b>	Excellent when fully cured.

### TYPICAL PROPERTIES AND APPLICATION DATA

<b>CLASSIFICATION</b>	Two pack polyester urethane		<b>APPLICATION CONDITIONS</b>	Min	Max	
<b>FINISH</b>	High Gloss & Flat		Air Temperature	5°C	45°C	
<b>COLOUR</b>	Clear Gloss, Clear Flat. MTO factory made colours (Gloss).		Substrate Surface Temperature	5°C	45°C	
<b>COMPONENTS</b>	Two		Relative Humidity		85%	
<b>SOLIDS BY VOLUME</b>	55% (White)			Min	Max	Recom.
<b>VOC LEVEL</b>	<430 g/L (White)		Wet film per coat (microns)	45	90	75
<b>FLASH POINT</b>	16°C		Dry film per coat (microns)	30	50	40
<b>POT LIFE</b>	6 Hours (4L, 25°C)		<b>SUITABLE SUBSTRATES</b>	Suitably primed steel, aluminium, zinc coated steel, concrete, fibreglass or MDF.		
<b>MIXING RATIO (V/V)</b>	Part A : 2      Part B : 1		<b>PRIMERS</b>	Two-pack epoxy primers.		
<b>THINNER</b>	<b>Brush</b>	965-08410	DUTHIN <sup>®</sup> 540	<b>APPLICATION METHODS</b>		
	<b>Spray</b>	965-63023	Dulux <sup>®</sup> Urethane Thinner	Brush, conventional, airless spray or air assisted spray.		
<b>PRODUCT CODE</b>		425-30900	Clear Gloss			
		425-82960	Clear Flat			
		425-63026	White			
		976-50357	Hardener			

#### Drying characteristics at 40 microns dry film thickness

Temperature	Humidity	Touch	Handle	Full Cure	Overcoat	
					Min	Max
25° C	50%	2 Hours	16 Hours	7 Days	16 Hours	3 Days

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

If the maximum overcoat interval is exceeded then the surface MUST be abraded to ensure maximum intercoat adhesion.

#### TYPICAL SPREADING RATE AT RECOMMENDED DRY FILM BUILD

A spreading rate of 13.8 sq. metres per litre corresponds to 40 microns dry film thickness assuming no losses. Practical spreading rates will vary depending on such factors as method and conditions of application and surface roughness.

# DURETHANE®

## TYPICAL SYSTEMS

(The typical systems are offered as a guide only and are not to be used as a specification. It is recommended that the specific needs of a project be discussed with a Dulux Protective Coatings Consultant.)

SURFACE	PREPARATION GUIDE	SYSTEM		DRY FILM THICKNESS
STEEL	Abrasive blast AS1627.4 Class 2.5	1st Coat	DUREPON® P14	75 Microns
		2nd Coat	DURETHANE®	40 Microns
		3rd Coat	DURETHANE® (Optional)	40 Microns
CONCRETE	Clean surface to remove contaminants. Diamond grind, track or light-shot blast. Remove dust. (Thin first coat 10-15%)	1st Coat	LUXEPOXY® 4 White Primer	50 Microns
		2nd Coat	DURETHANE®	40 Microns
		3rd Coat	DURETHANE®	40 Microns
HARDWOOD & MDF	Sand and dust down before and after first coat.	1st Coat	LUXEPOXY® 4 White Primer	50 Microns
		2nd Coat	DURETHANE®	40 Microns
ALUMINIUM	Clean, degrease and abrade surface	1st Coat	LUXEPOXY® 4 White Primer	50 Microns
		2nd Coat	DURETHANE®	40 Microns

**SURFACE PREPARATION** It is recommended that specifiers follow the guidelines for surface preparation from the data sheet for the primer selected. The primer surface must be free from grease, oil, dirt and other loosely adhering materials.

**APPLICATION** Stir each can thoroughly until the contents are uniform. Use of a power mixer is recommended. Ensure product is the correct colour before use – DULUX ASSUMES NO RESPONSIBILITY FOR THE APPLICATION OF AN INCORRECT COLOUR. Mix the contents of both packs together thoroughly using a power mixer and allow to stand for 10 minutes. Box all containers before use to ensure colour consistency. Remix thoroughly before using.

**BRUSH/ROLLER** Roller application is not recommended. Apply even coats by brush of the mixed material to the prepared surface. Thin if necessary with up to 60 ml/litre with DUTHIN® 540 (965-08410) to ease application. When brushing additional coats may be required to attain the specified thickness.

**CONVENTIONAL SPRAY** Thin up to 200ml/litre with Dulux® Urethane Thinner (965-63023) to aid atomisation. Apply in multiple wet coats overlapping each pass 50%.

Typical Set-up

Graco Delta Gun: 1.4mm (239542)  
 Pressure at Pot: 70-100 kPa (10-15 p.s.i.)  
 Pressure at Gun: 380-410 kPa (55-60 p.s.i.)

**AIRLESS SPRAY** Standard airless spray equipment such as a Graco 30:1 President with a fluid tip of 13-15 thou (0.33-0.38mm) 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 50 ml/litre of Dulux® Urethane Thinner (965-63023) may be added to ease application.

**PRECAUTIONS** 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® representative for advice prior to painting. Do not apply in conditions outside the parameters stated in this document without the express 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 that 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.

**CLEAN UP** Clean all equipment with DUTHIN® 310(965-08612) immediately after use.

**OVERCOATING** Aged coating should be tested for lifting by a method appropriate for the coating thickness, for example 'X' cut or cross-hatch methods. If it lifts, remove it. The surface must be free of oil, grease and other contaminants. High-pressure water wash at 8.3 to 10.3 MPa (1,200 - 1,500 p.s.i.) to remove loosely adhering chalk and dust. Abrasion may be required depending on surface condition. If the maximum overcoat interval is exceeded then the surface MUST be abraded to ensure maximum intercoat adhesion.

**SAFETY PRECAUTIONS** **Read Data Sheet, Material Safety Data Sheet and any precautionary labels on containers.**

**STORAGE** 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.

**HANDLING** 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. Gas is evolved when isocyanate in the hardener reacts with water. 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.

**USING** Use with good ventilation and avoid inhalation of spray mists and fumes. If risk of inhalation of spray mists exists, wear a positive-pressure, air-supplied respirator. When spray painting, users should comply with the provisions of the respective State Spray Painting Regulations.

**FLAMMABILITY** 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.

**WELDING** Avoid inhalation of fumes if welding surfaces coated with this paint. Grind off coating before welding.

**MATERIAL SAFETY DATA SHEET is available from Customer Service (132377) or www.duluxprotectivecoatings.com.au**

Dulux Protective Coatings a division of DuluxGroup (Australia) Pty Ltd  
 1956 Dandenong Road, Clayton 3168  
 A.B.N. 67 000 049 427  
 Dulux, Durethane, Durepon, Duthin and Luxepoxy are registered trademarks.  
 DuluxGroup is a trademark.

PACKAGING Available in 3 litre packs  
 TRANSPORTATION WEIGHT 1.38 kg/litre (Average of components)  
 DANGEROUS GOODS Part A: Class 3 UN 1263  
 Part B: Class 3 UN 1263

Any advice, recommendation, information, assistance or service provided by DULUX Australia in relation to goods manufactured by it or their use and application is given in good faith and is believed by Dulux to be appropriate and reliable. However, any advice, recommendation, information, assistance or service provided by Dulux is provided without liability or responsibility PROVIDED THAT the foregoing shall not exclude, limit, restrict or modify the right entitlements and remedies conferred upon any person or the liabilities imposed upon Dulux by any condition or warranty implied by Commonwealth, State or Territory Act or ordinance void or prohibiting such exclusion limitation or modification. Products can be expected to perform as indicated in this sheet so long as applications and application procedures are as recommended. Specific advice should be sought from Dulux for application in coastal areas and for large projects to ensure proper performance.