

# LUXATHANE® HPX

## High Performance Recoatable Gloss Polyurethane Finish

**PC 403**

- FEATURES**
- OUTSTANDING UV RESISTANCE AND GLOSS RETENTION
  - VERY GOOD DRYING AND RECOAT PROPERTIES
  - TINTABLE – AVAILABLE IN OVER 5,000 COLOURS
  - EXCELLENT ABRASION RESISTANCE AND CHEMICAL RESISTANCE
  - SMOOTH HIGH GLOSS FINISH
  - LONG TERM RECOATABILITY

**USES** LUXATHANE® HPX is a high performance full gloss, two-component acrylic polyurethane that is recoatable with minimum surface preparation. It is formulated for use in industrial, chemical and marine environments where excellent gloss and colour retention during extended service periods are required. The smooth, durable, high gloss finish is ideal for steelwork and facades of commercial projects, such as retail complexes and high rise offices and apartments. This versatile product is equally suitable for new construction and maintenance over properly primed steel, galvanised steel, aluminium, concrete, hardwood timber and MDF. LUXATHANE® HPX can be used directly over all Dulux® epoxy primers, universal primers, high-build epoxy intermediate coats and to aged, tightly adhering coatings subject to necessary solvent resistance tests and appropriate surface preparation. LUXATHANE® Accelerator is available for use with standard hardener to promote faster drying.

**SPECIFICATIONS** AS/NZS 3750.5

### RESISTANCE GUIDE

<b>WEATHERABILITY</b>	Excellent 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 acids	<b>ABRASION</b>	Excellent when fully cured.

### TYPICAL PROPERTIES AND APPLICATION DATA

<b>CLASSIFICATION</b>	Two pack acrylic polyurethane coating	<b>APPLICATION CONDITIONS</b>			
<b>FINISH</b>	High Gloss		Min	Max	
<b>COLOUR</b>	White, Black, and a full range of tinted colours and MTO factory made colours.	<b>Air Temp.</b>	10°C	40°C	
		<b>Substrate Temp.</b>	10°C	40°C	
		<b>Relative Humidity</b>		85%	
<b>COMPONENTS</b>	Two	<b>COATING THICKNESS (MICRONS)</b>			
<b>VOLUME SOLIDS</b>	56% (White)		Min	Max	Recommended
<b>VOC LEVEL</b>	<410 g/L (White)	<b>Wet film per coat (µm)</b>	90	125	90
<b>FLASH POINT</b>	46°C	<b>Dry film per coat (µm)</b>	50	70	50
<b>POT LIFE</b>	4 hours (4 litre kit, 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 : 5    Part B : 1	<b>PRIMERS</b>	Epoxy primers, etch primers and universal metal primers		
<b>THINNER –BRUSH</b>	965-42166    DUTHIN® 040	<b>APPLICATION METHODS</b>	Conventional, HVLP, airless spray or air assisted spray		
<b>THINNER –SPRAY</b>	965-42166    DUTHIN® 040				
<b>PRODUCT CODE</b>	764-63313    White 764-63001    Light Base 764-63002    Deep Base 764-63003    Clear Base 764-00070    Black 764-39141    Golden Yellow (MTO) 764-89800    New CAT Yellow (MTO) 976-H0111    Standard Hardener 976-H0229    Part C Accelerator				

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

Temperature	Humidity	Touch	Handle	Full Cure	OVERCOAT*	
					Min	Max
10° C	50%	75 Minutes	16 Hours	7 Days	16 Hours	Extended
15° C	50%	60 minutes	12 Hours	7 Days	12 Hours	Extended
25° C	50%	30 minutes	6 Hours	7 Days	6 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 11.2 square metres per litre equals 50 µm dry film thickness

ASSUMING NO LOSSES

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

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## 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)	90	130	90
Dry film per coat (µm)	50	70	50

### APPLICATION CONDITIONS

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

SOLIDS BY VOLUME	55% (White)
VOC LEVEL	<420 g/L (White)
POT LIFE	4 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	7 Hours	7 Days	7 Hours	Extended
25° C	50%	25 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 11.0 square metres per litre equals 50 µm dry film thickness

with Accelerator  
assuming no losses

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 – NEW	High corrosivity (AS2312.1 Cat C5) System PUR5	Abrasive blast AS1627.4 Class 2.5	1 <sup>st</sup> Coat Zincanode® 402	75 µm
			2 <sup>nd</sup> Coat Duremax® GPE	200 µm
			3 <sup>rd</sup> Coat Luxathane® HPX	50 µm
STEEL – NEW	Low-medium corrosivity (AS2312.1 Cat C2-4) Exceeds System PUR 2a	Abrasive blast AS1627.4 Class 2.5	1 <sup>st</sup> Coat Zincanode® 402	75 µm
			2 <sup>nd</sup> Coat Luxathane® HPX	50 µm
			3 <sup>rd</sup> Coat Luxathane® HPX	50 µm
STEEL – NEW	Low corrosivity (AS2312.1 Cat C2) System PUR2	Abrasive blast AS1627.4 Class 2.5	1 <sup>st</sup> Coat Durepon® EZP	75 µm
			2 <sup>nd</sup> Coat Luxathane® HPX	50 µm
STEEL – NEW OR MAINTENANCE	Low corrosivity (AS2312.1 Cat C2) System PUR1	Abrasive blast AS1627.4 Class 2 or power tool clean AS1627.2 St 3	1 <sup>st</sup> Coat Durebild® STE	125 µm
			2 <sup>nd</sup> Coat Luxathane® HPX	50 µm
CONCRETE	Exterior/Interior	Remove release agents and other surface contaminants	1 <sup>st</sup> Coat Durebild® STE	125 µm
			2 <sup>nd</sup> Coat Luxathane® HPX	50 µm
			3 <sup>rd</sup> Coat Luxathane® HPX	50 µm
HARDWOOD & MDF	Interior	Sand and dust down before and after first coat	1 <sup>st</sup> Coat Luxepoxy® 4 White Primer	50 µm
			2 <sup>nd</sup> Coat Luxathane® HPX	50 µm
			3 <sup>rd</sup> Coat Luxathane® HPX	50 µm
ALUMINIUM	Exterior/Interior	Clean, degrease and abrade surface	1 <sup>st</sup> Coat Luxepoxy® 4 White Primer	50 µm
			2 <sup>nd</sup> Coat Luxathane® HPX	50 µm
			3 <sup>rd</sup> Coat Luxathane® HPX	50 µm

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

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<b>SURFACE PREPARATION</b>	Specifiers should follow the surface preparation guidelines from the data sheet for the primer or 1 <sup>st</sup> Coat selected. The primed surface must be free from grease, oil, dirt, rust and other contaminants. If the primer has exceeded its maximum overcoat interval (see the data sheet of the primer) then the surface <b>MUST</b> be abraded to maximize the adhesion of this topcoat.								
<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 using 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. Application can be improved by thinning with up to 100 ml/litre with DUTHIN® 040 (965-42166). When brushing and rolling additional coats may be required to attain the specified thickness.								
<b>CONVENTIONAL SPRAY</b>	Thin up to 150ml/litre with DUTHIN® 040 (965-42166) to aid atomisation. Apply in multiple wet coats overlapping each pass 50% Typical Set-up <table border="0"> <tr> <td>Graco AirPro:</td> <td>1.4mm (239542)</td> </tr> <tr> <td>Pressure at Triton 308:</td> <td>70-100 kPa (10-15 p.s.i.)</td> </tr> <tr> <td>Pressure at Gun:</td> <td>380-410 kPa (55-60 p.s.i.)</td> </tr> <tr> <td>HVLP</td> <td>1.4 Fluid Tip Set</td> </tr> </table>	Graco AirPro:	1.4mm (239542)	Pressure at Triton 308:	70-100 kPa (10-15 p.s.i.)	Pressure at Gun:	380-410 kPa (55-60 p.s.i.)	HVLP	1.4 Fluid Tip Set
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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 (0.38) 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 150 ml/litre of Duthin® 040 (965-42166) 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 Safety Data Sheets for the two components before using. The recommended thinner <b>MUST</b> 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. The Accelerator will substantially speed up handle and dry times when used within the allowable temperature ranges quoted above. However, if lower than recommended application and substrate temperatures occur during curing, solvent entrapment and low gloss may occur due to the effects of condensation/dew.								
<b>CLEAN UP</b>	Clean all equipment with Dulux® Urethane Thinner (965-63023) immediately after use.								
<b>OVERCOATING</b>	<b>New:</b> Ensure the previous coat is clean, dirt and oil free before applying topcoat. If the recoat window of the previous coating has been exceeded, refer to datasheet for surface preparation for overcoating. <b>Aged or pre-existing coating:</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 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 must be worn while handling. 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.								
<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 always 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. <b>DO NOT SMOKE.</b> 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		<b>PACKAGING</b>	Available in 4 litre and 20 litre packs
DuluxGroup (Australia) Pty Ltd 1956 Dandenong Road, Clayton 3168 A.B.N. 67 000 049 427	DuluxGroup (New Zealand) Pty Ltd 150 Hutt Park Road, Lower Hutt, NZ A.B.N. 55 133 404 118	<b>TRANSPORTATION WEIGHT</b>	1.44 kg/litre (Average of components)
		<b>DANGEROUS GOODS</b>	Part A: Class 3 UN 1263 Part B: Class 3 UN 1263

Dulux, Duthin, Duremax, Durepon, Luxathane, Luxepoxy and Zincanode are registered trade marks of DuluxGroup (Australia) Pty Ltd.

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