

QUANTUM[®]

Recoatable High Gloss Polyurethane Finish

PC 435

- FEATURES**
- OUTSTANDING WEATHERING AND CHEMICAL RESISTANCE
 - EXCELLENT APPLICATION PROPERTIES
 - GRAFFITI RESISTANCE
 - HIGH GLOSS CLEARCOAT AVAILABLE

USES QUANTUM[®] is a premium quality, full gloss two-pack acrylic polyurethane. QUANTUM[®] has been designed for superior weathering and gloss retention, while displaying the advantage of being recoatable with minimal surface preparation. Ideal for almost any substrate and situation, and when used in conjunction with QUANTUM[®] FX will compliment structures such as awnings, cafes, bridgework, sporting and shopping complexes, lifts and furniture. QUANTUM[®], when fully cured, exhibits excellent graffiti resistance.

SPECIFICATIONS AS/NZS 3750.6

RESISTANCE GUIDE

HEAT RESISTANCE	Up to 120°C dry heat.	ALKALIS	Good resistance to splash and spillage of most common alkalis.
WEATHERABILITY	Excellent gloss and colour retention on exterior exposure.	SALTS	Unaffected by splash and spillage of most salt solutions.
SOLVENTS	Unaffected by splash and spillage of common alcohols, aliphatic and aromatic hydrocarbons, esters and ketones.	WATER	Excellent resistance to fresh and salt water but not suitable for immersion.
ACIDS	Suitable for splash and spillage exposure to most acids.		

TYPICAL PROPERTIES AND APPLICATION DATA

CLASSIFICATION	Acrylic polyurethane coating	APPLICATION CONDITIONS	Min	Max	
FINISH	High Gloss	Air Temperature	10°C	45°C	
COLOUR	Clearcoat Gloss and MTO factory made colours	Substrate Surface Temperature	10°C	45°C	
		Relative Humidity		85%	
COMPONENTS	Two		Min	Max	Recom.
SOLIDS BY VOLUME	43% (Clearcoat)	Wet film per coat (microns)	80	130	100
VOC LEVEL	<510 g/L (Clearcoat)	Dry film per coat (microns)	35	55	45
FLASH POINT	-7°C (Clearcoat)	SUITABLE SUBSTRATES	Suitably primed steel, aluminium, zinc coated steel, concrete, fibreglass or MDF.		
POT LIFE	2 hours (4L, 25°C)	PRIMERS	Epoxy primers, etch primers and universal metal primers.		
MIXING RATIO (V/V)	Part A : 3 Part B : 1	APPLICATION METHODS	Conventional spray and HVLP spray.		
THINNER	Brush 965-42166 DUTHIN [®] 040				
	Spray 965-42166 DUTHIN [®] 040				
	965-63023 Dulux [®] Urethane Thinner				
PRODUCT CODE	722-30900 Clearcoat Gloss				
	976-87350 Standard Hardener				

Drying characteristics at 45 microns dry film thickness

Standard Hardener	Temperature	Humidity	Touch	Handle	Full Cure	Overcoat	
						Min	Max
	25° C	50%	40 minutes	7 Hours	7 Days	7 Hours	Indefinite

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

TYPICAL SPREADING RATE AT RECOMMENDED DRY FILM BUILD

A spreading rate of 9.5 sq. metres per litre corresponds to 45 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.

QUANTUM®

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	QUANTUM® FX	55 Microns
		3rd Coat	QUANTUM® Clearcoat (Clearcoat optional)	45 Microns
		1st Coat	DUREMAX™ GPE	125 Microns
		2nd Coat	QUANTUM® FX	55 Microns
		3rd Coat	QUANTUM® Clearcoat (Clearcoat optional)	45 Microns
		1st Coat	ZINCANODE® 402	50 Microns
		2nd Coat	DUREMAX™ GPE ZP	125 Microns
		3rd Coat	QUANTUM® FX	55 Microns
		4th Coat	QUANTUM® Clearcoat (Clearcoat optional)	45 Microns
CONCRETE	Acid etch, or sweep blast. Dust off, wash clean with water and allow to dry.	1st Coat	LUXEPOXY® 4 White Primer	50 Microns
		2nd Coat	QUANTUM® FX	55 Microns
		3rd Coat	QUANTUM® Clearcoat (Clearcoat optional) (Thin first coat 10-15%)	45 Microns
HARDWOOD MDF	Sand and dust down before and after first coat.	1st Coat	LUXEPOXY® 4 White Primer	50 Microns
		2nd Coat	QUANTUM® FX	55 Microns
		3rd Coat	QUANTUM® Clearcoat (Clearcoat optional)	45 Microns
ALUMINIUM FIBREGLASS	Clean, degrease and abrade surface	1st Coat	LUXEPOXY® 4 White Primer	50 Microns
		2nd Coat	QUANTUM® FX	55 Microns
		3rd Coat	QUANTUM® Clearcoat (Clearcoat optional)	45 Microns
PLASTERBOARD (Interior Only)	Dust down before painting.	1st Coat	Oil Based Undercoat	50 Microns
		2nd Coat	QUANTUM® FX	55 Microns
		3rd Coat	QUANTUM® Clearcoat (Clearcoat optional)	45 Microns
COMPRESSED FIBRO CEMENT	Dust down before painting.	1st Coat	Interior Only Oil Based Undercoat	50 Microns
		2nd Coat	QUANTUM® FX	55 Microns
		3rd Coat	QUANTUM® Clearcoat (Clearcoat optional)	45 Microns
		1st Coat	Exterior LUXEPOXY® 4 White Primer	50 Microns
		2nd Coat	QUANTUM® FX	55 Microns
		3rd Coat	QUANTUM® Clearcoat (Clearcoat optional)	45 Microns

Using QUANTUM® Clearcoat Gloss over QUANTUM® FX tinted metallic colours will result in a striking finish with spectacular depth of image. The Clearcoat will give rise to a high gloss, wet looking finish as well as improving weatherability and resistance to graffiti removal solutions.

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. For best appearance of the finish the primer surface must be smooth and free of any defects. When sanding work from coarse to fine grades of paper to avoid sanding marks in the finish.
APPLICATION	Stir contents of each can thoroughly with a broad flat stirrer using a stirring, lifting action or use a power mixer. Mix the contents of both packs together thoroughly using a power mixer and allow to stand for 10 minutes. Remix thoroughly before using.
BRUSH/ROLLER	Suitable for small areas only. Where larger areas are involved, application is improved by the addition of up to 100 ml/litre of DUTHIN® 040 (965-42166). When brushing and rolling additional coats may be required to attain opacity.
CONVENTIONAL SPRAY	Up to 200ml/litre Dulux® Urethane Thinner can be used to aid atomisation. Apply in multiple wet on wet coats overlapping each pass 50%. Between two and four wet on wet coats are required to achieve opacity. Opacity may vary depending on colour. A short flash time of approximately two minutes is required between coats. <u>Typical Set-up</u> Graco Delta Gun: 1.4mm (239542) Pressure at Pot: 65-100 kPa (10-15 p.s.i.) Pressure at Gun: 385-420 kPa (55-60 p.s.i.)
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 10°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. In hot conditions use DUTHIN® 040 (965-42166) for improved flow and to reduce dry spray.
CLEAN UP	Clean all equipment with Dulux® Urethane Thinner (965-63023) 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.
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 ₂ 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

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PACKAGING	Available in 4 litre packs
TRANSPORTATION WEIGHT	1.28 kg/litre (Average of components)
DANGEROUS GOODS	Part A: Class 3 UN 1263 Part B: Class 3 UN 1263

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