

# WEATHERMAX<sup>®</sup> HBR

## High Build Recoatable Polyurethane

**PC 405**

- FEATURES**
- EXCELLENT BRUSH & ROLLER APPLICATION
  - CAN BE SPRAY APPLIED UP TO 125 MICRONS DFT IN A SINGLE COAT
  - SUPERIOR GLOSS AND COLOUR RETENTION
  - EXCELLENT RESISTANCE TO MOST GRAFFITI MEDIA AND CLEANING AGENTS
  - TINTABLE - AVAILABLE IN OVER 5000 COLOURS
  - ACCELERATOR AVAILABLE FOR USE IN COOLER CONDITIONS

**USES** WEATHERMAX<sup>®</sup> HBR has been locally developed for high build roller or brush application. It is a high build recoatable polyurethane coating designed to be used over a wide range of suitably primed substrates such as mild steel, galvanised steel, concrete and aluminium. WEATHERMAX<sup>®</sup> HBR is a high performance coating that exhibits excellent gloss and colour retention during extended service periods in severe industrial and marine environments and in extreme UV exposure. WEATHERMAX<sup>®</sup> HBR provides an effective barrier against graffiti and resists repeated cleaning by most propriety graffiti removal agents.

**SPECIFICATIONS** APAS 2911/1 - assessed and confirmed to meet all requirements on specific certified products. Refer to a Dulux Protective Coatings Consultant for more details. AS/NZS 3750.6. Tested in accordance with AS4548.5 Appendix C & D for use as a concrete anti-carbonation coating system when used with Durebild<sup>®</sup> STE.

### RESISTANCE GUIDE

<b>WEATHERABILITY</b>	Excellent gloss and colour retention on exterior exposure	<b>SOLVENTS</b>	Resists splash and spillage of most hydrocarbon solvents, refined petroleum products and common alcohols
<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>	Excellent resistance to splash and spillage of neutral and alkaline salt solutions	<b>ALKALIS</b>	Good resistance to splash and spillage of most common alkalis
<b>ACIDS</b>	Excellent resistance to splash and spillage of most acids	<b>ABRASION</b>	Good when fully cured

### TYPICAL PROPERTIES AND APPLICATION DATA (STANDARD HARDENER)

<b>CLASSIFICATION</b>	Acrylic polyurethane coating	<b>APPLICATION CONDITIONS</b>			
<b>FINISH</b>	Gloss		Min	Max	
<b>COLOUR</b>	White, Golden Yellow, Signal Red, Jet Black, a full range of tinted colours and MTO factory made colours. Also available in MIO colours (see separate data sheet)	<b>Air Temp.</b>	10°C	40°C	
<b>COMPONENTS</b>	Two (Three, when using Accelerator)	<b>Substrate Temp.</b>	10°C	40°C	
<b>VOLUME SOLIDS</b>	70% (White)	<b>Relative Humidity</b>		85%	
<b>VOC LEVEL</b>	<280 g/L (White)	<b>Concrete Moisture</b>		<6%	
<b>FLASH POINT</b>	42°C	<b>COATING THICKNESS (MICRONS)</b>			
<b>POT LIFE</b>	2 Hours (4 Litre kit, 25°C)		Min	Max	Recommended
<b>MIXING RATIO V/V</b>	Part A : 4    Part B : 1	<b>Wet film per coat (µm)</b>	110	180	145
<b>THINNER</b>	965-42166    DUTHIN <sup>®</sup> 040	<b>Dry film per coat (µm)</b>	75	125	100
<b>PRODUCT CODE</b>	770-00026    White 770-39141    Golden Yellow 770-00070    Jet Black 770-39079    Signal Red 770-63001    Light Base 770-63002    Deep Base 770-63003    Clear Base 976-84593    Standard Hardener 976-89935    Accelerator Part C	<b>SUITABLE SUBSTRATES</b>	Suitably primed steel, aluminium, zinc coated steel, CFC sheet, concrete and polyester composites		
		<b>PRIMERS</b>	Most Dulux <sup>®</sup> two pack primers		
		<b>TOPCOATS</b>	Not applicable		
		<b>APPLICATION METHODS</b>	Brush, roller, conventional, airless spray or air assisted spray		

### DRYING CHARACTERISTICS AT 100 µm DRY FILM THICKNESS\* (STANDARD HARDENER)

Temperature	Humidity	Touch	Handle	Full Cure	OVERCOAT	
					Min	Max
15° C	50%	10 Hours	25 Hours	7 Days	25 Hours	Extended
25° C	50%	3 Hours	10 Hours	7 Days	10 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** **7.0 square metres per litre equals 100 µm dry film thickness**  
 with Standard Hardener  
 assuming no losses  
 NOTE: Practical spreading rates will vary depending on such factors as application method, ambient conditions, 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)	110	180	150
Dry film per coat (µm)	75	125	100
<b>SOLIDS BY VOLUME</b>	68% (White)		
<b>VOC LEVEL</b>	<300 g/L (White)		
<b>POT LIFE</b>	2 Hours (4 Litre kit, 25°C)		

### APPLICATION CONDITIONS

	Min	Max
<b>Air Temperature</b>	5°C	40°C
<b>Substrate Surface Temperature</b>	5°C	40°C
<b>Relative Humidity</b>		85%
<b>Concrete Moisture Content</b>		<6%

## DRYING CHARACTERISTICS AT 100 µm DRY FILM THICKNESS\*

### OVERCOAT

Temperature	Humidity	Touch	Handle	Full Cure	Min	Max
10° C	50%	7 Hours	18 Hours	7 Days	18 Hours	Extended
25° C	50%	2 Hours	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

with Accelerator  
assuming no losses

**6.8 square metres per litre equals 100 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 – NEW	Very high corrosivity (AS2312.1 Cat C5) Exceeds System PUR5	Abrasive blast clean AS1627.4 Class 2.5	1 <sup>st</sup> Coat	Zincanode® 402	75 µm
			2 <sup>nd</sup> Coat	Duremax® GPE MIO	200 µm
			3 <sup>rd</sup> Coat	Weathermax® HBR	100 µm
STEEL – NEW	Very high corrosivity (AS2312.1 Cat C5) Exceeds System PUR4	Abrasive blast clean AS1627.4 Class 2.5	1 <sup>st</sup> Coat	Zincanode® 402	75 µm
			2 <sup>nd</sup> Coat	Duremax® GPE	125 µm
			3 <sup>rd</sup> Coat	Weathermax® HBR	100 µm
STEEL – NEW	Low – medium corrosivity (AS2312.1 Cat C2-3) System PUR2	Abrasive blast clean AS1627.4 Class 2.5	1 <sup>st</sup> Coat	Duremax® GPE ZP	125 µm
			2 <sup>nd</sup> Coat	Weathermax® HBR	100 µm
STEEL – MAINTENANCE	Exterior/Interior	Power tool clean AS1627.2 Class 2 minimum	Spot prime	Durebild® STE	125 µm
			1 <sup>st</sup> Coat	Durebild® STE	125 µm
			2 <sup>nd</sup> Coat	Weathermax® HBR	100 µm
GALVANISED STEEL	Mild - Moderate (AS2312.1 Cat C2-3) System PUR2	Clean, degrease and abrade surface	1 <sup>st</sup> Coat	Duremax® GPE ZP	125 µm
			2 <sup>nd</sup> Coat	Weathermax® HBR	100 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	Weathermax® HBR	100 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	Weathermax® HBR	100 µm

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

### SURFACE PREPARATION

Specifiers should follow the surface preparation guidelines from the data sheet for the primer or first coat selected. The surface must be clean, sound and free from moisture, grease, oil, dirt, rust, loose paint, and other contaminants. Degrease surface with Gamlen CA 1 detergent (according to the manufacturer's written instructions and all safety warnings) and then abrade to provide a key for the coating system. If application of the second coat has exceeded the recoat window of the first coat (refer to data sheet) then the entire surface MUST be abraded.

**Steel Maintenance:** Wash with Gamlen CA 1 according to the manufacturer's written instructions and all safety warnings. (Refer to AS1627.1 Part 2.2). Remove unsound coatings. Feather back edges to remove ridges. Abrade entire surface of tightly adhering remaining coating to provide a suitable key for the new coating system. Remove all red rust by power tool cleaning in accordance with AS/NZ 1627:2 Class 2. Remove all residues. Spot prime bare steel with the first coat nominated in the Typical Systems Guide.

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<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. <b>If Weathermax® HBR Accelerator (Part C) is to be used, add under power mixing after the Part A and Part B have been mixed. Use one dose only per 4 Litre kit.</b> Box all containers before use to ensure colour consistency. Remix thoroughly before application.									
<b>BRUSH/ROLLER</b>	Apply even coats of the mixed material to the prepared surface. Thin if necessary with up to 50 ml/litre with Duthin® 040 (965-42166) to aid application. When brushing and rolling additional coats may be required to attain the specified thickness. Note - If a more decorative appearance is required it may be necessary to adjust thinning levels (up to 100 – 150ml/litre), roller type and application technique.									
<b>CONVENTIONAL SPRAY</b>	Thin up to 100 ml/litre with DUTHIN® 040 (965-42166) to aid atomisation. <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> </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.)
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.)								
<b>AIRLESS SPRAY</b>	Standard airless spray equipment such as a Graco Xtreme 45:1 with a fluid tip of 15-19 thou (0.38-0.48mm) 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 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 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-specified thinner be allowed to contaminate the product. To minimize variations in gloss and appearance on a structure or item it is recommended that Weathermax® Accelerator is used in all kits or not at all, ie do not paint half the item with the Accelerator and half without. This may result in a slight difference in appearance and gloss. Note - The Weathermax® HBR 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 are experienced during curing it may lead to solvent entrapment and low gloss due to the effects of condensation/dew.									
<b>CLEAN UP</b>	Clean all equipment with Duthin® 040 (965-42166) 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 bonded 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 and using. 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 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		<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>	1.43 kg/litre (Average of components)
		<b>DANGEROUS GOODS</b>	Part A: Class 3 UN 1263 Part B: Class 3 UN 1263 Part C: Class 3 UN 1263

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