WEATHERMAX® 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
- ACCELERATOR AVAILABLE FOR USE IN COOLER CONDITIONS

USES

WEATHERMAX® 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® 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® 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.
APAS 1441/2: Assessed and confirmed to meet all requirements on specific certified products.
APAS 1441/3: Assessed and confirmed to meet all requirements on specific certified products.
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 ® STE.
Certificate of test to AS/NZS 1530.3:1999 available for specific coating system and substrates.
Compliant with paint reference number (PRN) C26 of AS 2312.1

RESISTANCE GUIDE

WEATHERABILITY	Excellent gloss and colour retention on exterior exposure	**SOLVENTS**	Resists splash and spillage of most hydrocarbon solvents, refined petroleum products and common alcohols
HEAT RESISTANCE	Up to 120°C dry heat	**WATER**	Excellent resistance to fresh and salt water but not suitable for immersion
SALTS	Excellent resistance to splash and spillage of neutral and alkaline salt solutions	**ALKALIS**	Good resistance to splash and spillage of most common alkalis
ACIDS	Excellent resistance to splash and spillage of most acids	**ABRASION**	Good when fully cured

TYPICAL PROPERTIES AND APPLICATION DATA (STANDARD HARDENER)

CLASSIFICATION	Acrylic polyurethane coating
FINISH	Gloss
COLOUR	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)
COMPONENTS	Two (Three, when using Accelerator)
VOLUME SOLIDS	70% (White)
VOC LEVEL	<280 g/L (White)
FLASH POINT	42°C
POT LIFE	2 Hours (4 Litre kit, 25°C)
MIXING RATIO V/V	Part A : 4 Part B : 1
THINNER	965-42166 Duthin® 040 (Brush & roll) 965-63023 Urethane Thinner (Spray) 965-H0298 Duthin® 511 (Above 25oC)
PRODUCT CODE	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

APPLICATION CONDITIONS

	Min	Max
Air Temp.	10°C	40°C
Substrate Temp.	10°C	40°C
Relative Humidity		85%
Concrete Moisture		<6%

COATING THICKNESS (MICRONS)

	Min	Max	Recommended
Wet film per coat (µm)	110	180	145
Dry film per coat (µm)	75	125	100

SUITABLE SUBSTRATES	Suitably primed steel, aluminium, zinc coated steel, CFC sheet, concrete and polyester composites
PRIMERS	Most Dulux® two pack primers
TOPCOATS	Not applicable
APPLICATION METHODS	Brush, roller, conventional, airless spray or air assisted spray

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

					OVERCOAT	
Temperature	**Humidity**	**Touch**	**Handle**	**Full Cure**	**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 **with Standard Hardener** assuming no losses	**7.0 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.

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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

SOLIDS BY VOLUME | 68% (White)

VOC LEVEL | <300 g/L (White)

POT LIFE | 2 Hours (4 Litre kit, 25°C)

APPLICATION CONDITIONS

	Min	Max
Air Temperature	5°C	40°C
Substrate Surface Temperature	5°C	40°C
Relative Humidity		85%
Concrete Moisture Content		<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	1st Coat 2nd Coat 3rd Coat	Zincanode® 402 Duremax® GPE MIO Weathermax® HBR	75 µm 200 µm 100 µm
STEEL – NEW	Very high corrosivity (AS2312.1 Cat C5) Exceeds System PUR4	Abrasive blast clean AS1627.4 Class 2.5	1st Coat 2nd Coat 3rd Coat	Zincanode® 402 Duremax® GPE Weathermax® HBR	75 µm 125 µm 100 µm
STEEL – NEW	Low – medium corrosivity (AS2312.1 Cat C2-3) System PUR2	Abrasive blast clean AS1627.4 Class 2.5	1st Coat 2nd Coat	Duremax® GPE ZP Weathermax® HBR	125 µm 100 µm
STEEL – MAINTENANCE	Exterior/Interior	Power tool clean AS1627.2 Class 2 minimum	Spot prime 1st Coat 2nd Coat	Durebild® STE Durebild® STE Weathermax® HBR	125 µm 125 µm 100 µm
GALVANISED STEEL	Mild - Moderate (AS2312.2 Cat C3-4) System 5D	Degrease and whip blast	1st Coat 2nd Coat 3rd Coat	Duremax® GPE ZP Duremax® MBE Weathermax® HBR	125 µm 200 µm 75 µm
CONCRETE	Exterior/Interior	Remove release agents and other surface contaminants	1st Coat 2nd Coat	Durebild® STE Weathermax® HBR	125 µm 100 µm
ALUMINIUM	Exterior/Interior	Clean, degrease and abrade surface	1st Coat 2nd Coat	Luxepoxy® 4 White Primer Weathermax® HBR	50 µm 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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APPLICATION	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. **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.** Box all containers before use to ensure colour consistency. Remix thoroughly before application.
BRUSH/ROLLER	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.
CONVENTIONAL SPRAY	Thin up to 100 ml/litre with Urethane thinner (965-63023) or for temperatures above 25oC Duthin® 511 (965-H0298) to aid atomisation. 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.)
AIRLESS SPRAY	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 Urethane thinner (965-63023) or for temperatures above 25oC, Duthin® 511 (965-H0298) may be added to aid 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® 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.
CLEAN UP	Clean all equipment with Duthin® 040 (965-42166) immediately after use
OVERCOATING	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.
SAFETY PRECAUTIONS	**Read Data Sheet, SAFETY DATA SHEET and any precautions on container labels. SAFETY DATA SHEET is available from Customer Service (13 23 77) or www.duluxprotectivecoatings.com.au**
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 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.
USING	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.
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.

COMPANY INFORMATION

Dulux Protective Coatings a division of

DuluxGroup (Australia) Pty Ltd DuluxGroup (New Zealand) Pty Ltd

PACKAGING, TRANSPORT AND STORAGE

PACKAGING Available in 4 litre and 20 litre packs

TRANSPORTATION WEIGHT 1.43 kg/litre (Average of components)

1956 Dandenong Road, Clayton 3168 A.B.N. 67 000 049 427	150 Hutt Park Road, Lower Hutt, NZ A.B.N. 55 133 404 118	DANGEROUS GOODS	Part A: Class 3 UN 1263 Part B: Class 3 UN 1263 Part C: Class 3 UN 1263

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