WEATHERMAX® HBR MIO

High Build Recoatable Polyurethane — PC 406

FEATURES
- EXCELLENT HIGH BUILD BRUSH & ROLLER APPLICATION
- SUPERIOR GLOSS & COLOUR RETENTION
- CAN BE APPLIED UP TO 125 MICRONS DFT IN A SINGLE COAT VIA SPRAY APPLICATION
- ACCELERATOR AVAILABLE FOR USE IN COOLER CONDITIONS
- AVAILABLE IN TWO MICACEOUS IRON OXIDE FINISHES

USES
WEATHERMAX® HBR MIO 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. The micaceous iron oxide pigment particles interlock in the film to form a barrier against moisture ingress. WEATHERMAX® HBR MIO 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

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.
Tested in accordance with AS/NZS 3750.6:
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 most common alcohols
HEAT RESISTANCE	Up to 120°C dry heat	**WATER**	Excellent resistance to fresh and salt water but not suitable for immersion
SALTS	Unaffected by splash and spillage of neutral salt solutions	**ALKALIS**	Not recommended where fumes, splash or spillage may occur
ACIDS	Not recommended where fumes, splash or spillage may occur	**ABRASION**	Good when fully cured

TYPICAL PROPERTIES AND APPLICATION DATA (STANDARD HARDENER)

CLASSIFICATION	Acrylic polyurethane coating
FINISH	Semi-Gloss
COLOUR	MIO Natural Grey, MIO Mid Grey
COMPONENTS	Two (Three, when using Accelerator)
VOLUME SOLIDS	66%
VOC LEVEL	<320 g/L
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	770-63006 MIO Mid Grey 770-63095 MIO Natural Grey 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)	115	190	150
Dry film per coat (µm)	75	125	100

SUITABLE SUBSTRATES	Suitably primed steel, aluminium, zinc coated steel, concrete and 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

6.6 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)	115	195	155
Dry film per coat (µm)	75	125	100

SOLIDS BY VOLUME	64%
VOC LEVEL	<335 g/L
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

6.4 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	Coastal (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 MIO	75 µm 200 µm 100 µm
STEEL – NEW	Coastal (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 MIO	75 µm 125 µm 100 µm
STEEL – NEW	Mild - Moderate (AS2312.1 Cat C2-3) System PUR2	Abrasive blast clean AS1627.4 Class 2.5	1st Coat 2nd Coat	Duremax® GPE ZP Weathermax® HBR MIO	125 µm 100 µm
STEEL – MAINTENANCE	Exterior/Interior	Power tool clean AS1627.2 Class 2 minimum	1st Coat 2nd Coat	Durebild® STE Weathermax® HBR MIO	125 µm 100 µm
GALVANISED STEEL	Mild - Moderate (AS2312.2 Cat C2-3) System 5D	Degrease and whip blast	1st Coat 2nd Coat 3rd Coat	Duremax® GPE ZP Duremax® MBE Weathermax® HBR MIO	125 µm 200 µm 100 µm
CONCRETE	Exterior/Interior	Remove release agents and other surface contaminants	1st Coat 2nd Coat	Durebild® STE Weathermax® HBR MIO	125 µm 100 µm
ALUMINIUM	Exterior/Interior	Clean, degrease and abrade surface	1st Coat 2nd Coat	Luxepoxy® 4 White Primer Weathermax® HBR MIO	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.

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APPLICATION

Mix each can thoroughly using a power mixer until the contents are uniform. 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.** 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 highly 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® Cosultant 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, i.e. 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. Due to aluminium elements in the coating, this product is not recommended for service in acidic or alkaline conditions. Coatings containing micaceous iron oxide (MIO) are prone to marring but this will not affect the protective properties. With MIO coatings colour variations will occur due to different application techniques.

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 a dry, 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 combined organic vapour/particulate respirator. Users must comply with their respective State Spray Painting Regulations at all times. 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

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PACKAGING, TRANSPORT AND STORAGE

PACKAGING	Available in 4 litre packs
TRANSPORTATION WEIGHT	1.43 kg/litre (Average of components)
DANGEROUS GOODS	Part A: Class 3 UN 1263 Part B: Class 3 UN 1263 Part C: Class 3 UN 1263

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