

DUREBILD[®] HSE

High Build Two Pack Epoxy Coating

PC 230

- FEATURES**
- HIGHLY RESISTANT TO CHEMICAL, SOLVENTS AND AGGRESSIVE EXPOSURE
 - SUITABLE FOR APPLICATION TO PREPARED CONCRETE
 - EXTREMELY TOUGH ABRASION RESISTANT FILM
 - HIGH BUILD ONE COAT PROTECTION
 - POTABLE WATER APPROVAL

USES DUREBILD[®] HSE is a high solids, two component epoxy with high build characteristics allowing single coat application up to 500 microns dry film thickness direct to suitably prepared mild steel and over inorganic zinc rich or epoxy anti-corrosive primers.

DUREBILD[®] HSE is especially designed for the protection of marine structures and chemical plants where maximum resistance to chemicals, abrasion or solvents is required. An abrasion resistant coating for concrete floors.

DUREBILD[®] HSE suitable as a tank lining for the storage of potable water.

SPECIFICATIONS AS/NZS 3750.14
AS/NZ 4020:2005 for use with potable water (White/Light Base – untinted when using Standard Part B ONLY)

RESISTANCE GUIDE

HEAT RESISTANCE	Up to 120°C dry heat.	ALKALIS	Excellent resistance to splash and spillage of most alkalis.
WEATHERABILITY	Epoxy coatings may yellow with time. On exterior exposure some chalking may also occur. This will not detract from the protective properties of the coating. Use a weatherable topcoat if required for appearance.	SALTS	Unaffected by splash and spillage of neutral and alkaline salt solutions.
SOLVENTS	Resists splash and spillage of aromatic and aliphatic hydrocarbon solvents and alcohols.	WATER	Excellent resistance to fresh and salt water.
ACIDS	Suitable for splash and spillage exposure to dilute acids.	ABRASION	Excellent when fully cured. 205 mg per 1000 cycles (CS-17, 1000 gm load/wheel)
		ADHESION	8.6 MPa (1258 p.s.i) (Adhesion Pull-Off Test, AS1580.408.5)

TYPICAL PROPERTIES AND APPLICATION DATA

CLASSIFICATION	High build two pack epoxy finish	APPLICATION CONDITIONS			
FINISH	Gloss	Refer to Page 2			
COLOUR	White, N35 Light Grey, limited range of tinted colours and MTO factory made colours.				
COMPONENTS	Two		Min	Max	Recom.
SOLIDS BY VOLUME	Refer to Page 2	Wet film per coat (microns)	Refer to Page 2		
VOC LEVEL	Refer to Page 2	Dry film per coat (microns)			
FLASH POINT	16°C	SUITABLE SUBSTRATES	Blast cleaned steel. Suitably primed steel and prepared concrete.		
POT LIFE	Refer to Page 2	PRIMERS	Inorganic zinc or two-pack epoxy.		
MIXING RATIO (V/V)	Part A : 4 Part B : 1	APPLICATION METHODS	Conventional, airless spray or roller.		
THINNER	920-08925 Dulux [®] Epoxy Thinner				
PRODUCT CODE	744-00026 White 744-63002 Deep Base 744-38678 N35 Light Grey 980-50251 Standard Hardener 980-50269 Fast Hardener 980-H0074 CS Hardener 980-H0113 Fast CS Hardener				

DUREBILD® HSE

Standard Hardener & CS Hardener						
COATING THICKNESS				APPLICATION CONDITIONS		
	Min	Max	Recom.		Min	Max
Wet film per coat (microns)	145	590	235	Air Temperature	10°C	45°C
Dry film per coat (microns)	125	500	200	Substrate Surface Temperature	10°C	45°C
				Relative Humidity		85%
				Concrete Moisture Content		<10%
SOLIDS BY VOLUME	85% (White/Light Base)			POT LIFE	2 Hours (20L, 25°C)	
VOC LEVEL	<140 g/L (White/Light Base, untinted)					
Drying characteristics at 200 microns dry film thickness						
Temperature	Humidity	Touch	Handle	Full Cure	Min	Overcoat Max
25° C	50%	5 Hours	24 Hours	7 Days	24 Hours	48 Hours
TYPICAL SPREADING RATE AT RECOMMENDED DRY FILM BUILD				A spreading rate of 4.2 sq. metres per litre corresponds to 200 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.		

Fast Hardener						
COATING THICKNESS				APPLICATION CONDITIONS		
	Min	Max	Recom.		Min	Max
Wet film per coat (microns)	145	590	235	Air Temperature	10°C	45°C
Dry film per coat (microns)	125	500	200	Substrate Surface Temperature	10°C	45°C
				Relative Humidity		85%
				Concrete Moisture Content		<10%
SOLIDS BY VOLUME	85% (White/Light Base)			POT LIFE	2 Hours (20L, 25°C)	
VOC LEVEL	<140 g/L (White/Light Base, untinted)					
Drying characteristics at 200 microns dry film thickness						
Temperature	Humidity	Touch	Handle	Full Cure	Min	Overcoat Max
15° C	50%	14 Hours	28 Hours	7 Days	24 Hours	48 Hours
25° C	50%	6 Hours	14 Hours	7 Days	13 Hours	48 Hours
TYPICAL SPREADING RATE AT RECOMMENDED DRY FILM BUILD				A spreading rate of 4.2 sq. metres per litre corresponds to 200 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.		

Fast Cure CS Hardener						
COATING THICKNESS				APPLICATION CONDITIONS		
	Min	Max	Recom.		Min	Max
Wet film per coat (microns)	145	590	235	Air Temperature	10°C	45°C
Dry film per coat (microns)	125	500	200	Substrate Surface Temperature	10°C	45°C
				Relative Humidity		85%
				Concrete Moisture Content		<10%
SOLIDS BY VOLUME	85% (White/Light Base)			POT LIFE	2 Hours (20L, 25°C)	
VOC LEVEL	<140g/L (White/Light Base, untinted)					
Drying characteristics at 200 microns dry film thickness						
Temperature	Humidity	Touch	Handle	Full Cure	Min	Overcoat Max
10°C	50%	12 Hours	24 Hours	7 Days	24 Hours	48 Hours
15° C	50%	6 Hours	12 Hours	7 Days	12 Hours	48 Hours
25° C	50%	3 Hours	6 Hours	7 Days	6 Hours	48 Hours
TYPICAL SPREADING RATE AT RECOMMENDED DRY FILM BUILD				A spreading rate of 4.2 sq. metres per litre corresponds to 200 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.		

These figures are given as a guide only, as ventilation, film thickness, humidity, thinning and other factors will influence the rate of drying. Use of fast or low temperature hardeners may result in a reduction of gloss level.

If the maximum overcoat interval is exceeded then the surface MUST be abraded to ensure maximum intercoat adhesion.

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	DUREBILD® HSE	200 - 500 Microns
		1st Coat	ZINCANODE® 402	75 Microns
		2nd Coat	DUREBILD® HSE	200 Microns
		1st Coat	DUREPON® P14	75 Microns
		2nd Coat	DUREBILD® HSE	200 Microns
CONCRETE	Clean surface to remove contaminants. Diamond grind, track or light-shot blast. Remove dust.	1st Coat	DUREBILD® HSE	200 Microns
		2nd Coat	DUREBILD® HSE	200 Microns

SURFACE PREPARATION

Steel:

Round off all rough welds, sharp edges and remove weld spatter. Remove grease, oil and other contaminants in accordance with AS1627.1. For steel substrates, abrasive blast clean to a minimum of AS1627.4 Class 2.5 with a blast profile of 40-70 microns.

Concrete:

Remove all laitance, form release, curing compounds, oil, grease and other surface contaminants. Diamond grind, track or light shot-blast to provide suitable profile. Remove all dust by vacuum cleaning. Fill any large voids exposed using Luxepoxy Filler. Cement based substrates should be at least 21 days old before coating.

APPLICATION

Stir each can thoroughly until the contents are uniform. Use of a power mixer is recommended. 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

Recommended for brush application only for spot patching on rivets, seams, etc. Roller application suitable for use on concrete floors by applying even coats of mixed material to the prepared surface. Thin if necessary with up to 50ml/litre with Dulux® Epoxy Thinner (920-08925) to ease application. When brushing and rolling additional coats may be required to attain the specified thickness.

CONVENTIONAL SPRAY

Thinning is not normally required but up to 50ml/litre with Dulux® Epoxy Thinner (920-08925) may be used to aid atomisation. Apply in multiple wet coats overlapping each pass 50%.

Typical Set-up

Graco Delta Gun: 1.8mm (239543)
 Pressure at Pot: 70-100 kPa (10-15 p.s.i.)
 Pressure at Gun: 380-410 kPa (55-60 p.s.i.)

AIRLESS SPRAY

Standard airless spray equipment such as a Graco Xtreme 56:1 with a fluid tip of 19-21 thou (0.48-0.53mm) 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 Dulux® Epoxy Thinner (920-08925) may be used to aid atomisation.

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. When applying this product to broad surfaces such as floors use only one application method to avoid colour variation or streaking. Use of fast or low temperature hardeners may result in a reduction of gloss level. For best results in water immersion conditions replace Dulux® Epoxy Thinner (920-08925) with Dulux® CR Reducer (965-63020).

CLEAN UP

Clean all equipment with Dulux® Epoxy Thinner (920-08925) 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. If the maximum overcoat interval is exceeded then the surface MUST be abraded to ensure maximum intercoat adhesion.

SAFETY PRECAUTIONS

Read Data Sheet, Safety Data Sheet and any precautionary labels on containers.

STORAGE

Store as required for a corrosive liquid Class 8 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.

USING	Use with good ventilation and avoid inhalation of spray mists and fumes. If risk of inhalation of spray mists exists, wear combined organic vapour/particulate 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.

SAFETY DATA SHEET is available from Dulux Customer Service (Australia 132 377 or New Zealand 0800 800 424)
www.duluxprotectivecoatings.com.au

Dulux Protective Coatings a division of		PACKAGING	Available in 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	TRANSPORTATION WEIGHT	1.28 kg/litre (Average of components)
Dulux, Durebild, Zincode and Durepon are registered trade marks of DuluxGroup (Australia) Pty Ltd.		DANGEROUS GOODS	Part A: Class 3 UN 1263 Part B: Class 8 UN 2735

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