

# DUREBILD<sup>®</sup> 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

**USES** DUREBILD<sup>®</sup> 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<sup>®</sup> 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.

**SPECIFICATIONS** AS/NZS 3750.14

## RESISTANCE GUIDE

<b>HEAT RESISTANCE</b>	Up to 120°C dry heat.	<b>ALKALIS</b>	Excellent resistance to splash and spillage of most alkalis.
<b>WEATHERABILITY</b>	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.	<b>SALTS</b>	Unaffected by splash and spillage of neutral and alkaline salt solutions.
<b>SOLVENTS</b>	Resists splash and spillage of aromatic and aliphatic hydrocarbon solvents and alcohols.	<b>WATER</b>	Excellent resistance to fresh and salt water.
<b>ACIDS</b>	Suitable for splash and spillage exposure to dilute acids.	<b>ABRASION</b>	Excellent when fully cured. 205 mg per 1000 cycles (CS-17, 1000 gm load/wheel)
		<b>ADHESION</b>	8.6 MPa (1258 p.s.i) (Adhesion Pull-Off Test, AS1580.408.5)

## TYPICAL PROPERTIES AND APPLICATION DATA

<b>CLASSIFICATION</b>	High build two pack epoxy finish	<b>APPLICATION CONDITIONS</b>		
<b>FINISH</b>	Gloss	<b>Refer to Page 2</b>		
<b>COLOUR</b>	White, N35 Light Grey, limited range of tinted colours and MTO factory made colours.			
<b>COMPONENTS</b>	Two	<b>Min    Max    Recom.</b>		
<b>SOLIDS BY VOLUME</b>	<b>Refer to Page 2</b>			
<b>VOC LEVEL</b>	<b>Refer to Page 2</b>	<b>Refer to Page 2</b>		
<b>FLASH POINT</b>	16°C			
<b>POT LIFE</b>	<b>Refer to Page 2</b>	<b>SUITABLE SUBSTRATES</b>		
<b>MIXING RATIO (V/V)</b>	Part A : 4    Part B : 1			
<b>THINNER</b>	920-08925    Dulux <sup>®</sup> Epoxy Thinner	<b>PRIMERS</b>		
<b>PRODUCT CODE</b>	744-63001    White/Light Base 744-63002    Deep Base 744-38678    N35 Light Grey 980-50251    Standard Hardener 980-50269    Fast Hardener			
		<b>APPLICATION METHODS</b>		
		Conventional, airless spray or roller.		

# DUREBILD® HSE

Standard Hardener						
<b>COATING THICKNESS</b>				<b>APPLICATION CONDITIONS</b>		
	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%
<b>SOLIDS BY VOLUME</b>	85% (White/Light Base)			<b>POT LIFE</b>	2 Hours (20L, 25°C)	
<b>VOC LEVEL</b>	<140 g/L (White/Light Base, untinted)					
<b>Drying characteristics at 200 microns dry film thickness</b>						
<b>Temperature</b>	<b>Humidity</b>	<b>Touch</b>	<b>Handle</b>	<b>Full Cure</b>	<b>Min</b>	<b>Overcoat Max</b>
25°C	50%	5 Hours	24 Hours	7 Days	24 Hours	48 Hours
<b>TYPICAL SPREADING RATE AT RECOMMENDED DRY FILM BUILD</b>				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						
<b>COATING THICKNESS</b>				<b>APPLICATION CONDITIONS</b>		
	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%
<b>SOLIDS BY VOLUME</b>	85% (White/Light Base)			<b>POT LIFE</b>	2 Hours (20L, 25°C)	
<b>VOC LEVEL</b>	<140 g/L (White/Light Base, untinted)					
<b>Drying characteristics at 200 microns dry film thickness</b>						
<b>Temperature</b>	<b>Humidity</b>	<b>Touch</b>	<b>Handle</b>	<b>Full Cure</b>	<b>Min</b>	<b>Overcoat Max</b>
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
<b>TYPICAL SPREADING RATE AT RECOMMENDED DRY FILM BUILD</b>				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
CONCRETE	Clean surface to remove contaminants. Diamond grind, track or light-shot blast. Remove dust.	1st Coat	DUREPON® P14	75 Microns
		2nd Coat	DUREBILD® HSE	200 Microns

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## 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.

## 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, Material Safety Data Sheet and any precautionary labels on containers.**

### STORAGE

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.

### 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<sub>2</sub> 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](http://www.duluxprotectivecoatings.com.au)**

Dulux Protective Coatings a division of DuluxGroup (Australia) Pty Ltd  
1956 Dandenong Road, Clayton 3168  
A.B.N. 67 000 049 427

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PACKAGING	Available in 20 litre packs
TRANSPORTATION WEIGHT	1.28 kg/litre (Average of components)
DANGEROUS GOODS	Part A: Class 3 UN 1263 Part B: Class 3 UN 3066

Any advice, recommendation, information, assistance or service provided by DULUX Australia in relation to goods manufactured by it or their use and application is given in good faith and is believed by Dulux to be appropriate and reliable. However, any advice, recommendation, information, assistance or service provided by Dulux is provided without liability or responsibility PROVIDED THAT the foregoing shall not exclude, limit, restrict or modify the right entitlements and remedies conferred upon any person or the liabilities imposed upon Dulux by any condition or warranty implied by Commonwealth, State or Territory Act or ordinance void or prohibiting such exclusion limitation or modification. Products can be expected to perform as indicated in this sheet so long as applications and application procedures are as recommended. Specific advice should be sought from Dulux for application in coastal areas and for large projects to ensure proper performance.