

DUREBILD[®] STE

Surface Tolerant High Build High Solids Epoxy Coating

PC 237

- FEATURES**
- SUPERIOR SURFACE WETTING PROPERTIES AND CORROSION RESISTANCE
 - HIGH PERFORMANCE SURFACE TOLERANT MAINTENANCE COATING
 - CAN BE APPLIED OVER A WIDE RANGE OF WELL ADHERED AGED COATINGS
 - SELF PRIMING FINISH
 - EXCELLENT BRUSH AND ROLLER CHARACTERISTICS
 - WIDE RANGE OF COLOURS AVAILABLE FROM THE COLORFAST TINT SYSTEM

USES DUREBILD[®] STE has been developed specifically for Australian conditions using the latest epoxy technology. It is principally used as a high performance maintenance coating over hand, power tool or high-pressure water cleaned surfaces where blasting is impractical or not allowed. This coating can also be used for new work and where required as an intermediate coat. Untinted DUREBILD[®] STE is ideal for fresh and salt-water immersion over abrasive blast cleaned steel. It provides excellent protection against the splash and spillage of a wide range of chemicals. DUREBILD[®] STE can be topcoated with a wide range of coating types and is available with a cold cure hardener that is bloom free.

SPECIFICATIONS Approved to APAS 2977
AS/NZS 3750.1

RESISTANCE GUIDE

HEAT RESISTANCE	Up to 120°C dry heat.	ALKALIS	Suitable for splash and spillage of strong alkalis. Aluminium containing colours are not recommended for alkaline conditions.
WEATHERABILITY	Some chalking and yellowing will occur with exterior exposure if not topcoated. This will not detract from the resistance properties of the coating.	SALTS	Excellent resistance to neutral and alkali salts. Aluminium containing colours are not recommended for alkaline conditions.
SOLVENTS	Resists splash and spillage of most hydrocarbon solvents, refined petroleum products and most common alcohols.	WATER	Excellent resistance to immersion in fresh and salt water. Tinted colours and aluminium containing colours are not recommended for immersion conditions.
ACIDS	White and colours are suitable for splash and spillage of mild acids. Aluminium containing colours are not recommended for acidic conditions.	ABRASION	Good when fully cured.

TYPICAL PROPERTIES AND APPLICATION DATA

CLASSIFICATION	Surface Tolerant Epoxy	APPLICATION CONDITIONS	
FINISH	Semi Gloss		
COLOUR	White, N35 Light Grey, Black, Aluminium, MTO factory made colours and a full range of tinted colours.		Refer to Page 2
COMPONENTS	Two		
SOLIDS BY VOLUME	Refer to Page 2		
VOC LEVEL	Refer to Page 2		
FLASH POINT	40°C		
POT LIFE (4L, 25°C)	Refer to Page 2		
MIXING RATIO (V/V)	Part A : 4 Part B : 1		
THINNER	920-08925 Dulux [®] Epoxy Thinner		
PRODUCT CODE	775-38678 N35 Light Grey 775-39141 LF Golden/Yellow 775-50585 Black 775-50570 Aluminium 775-63001 White/Light Base 775-63002 Deep Base 775-63003 Clear Base 976-84539 Standard Hardener 976-84685 Cold Cure Hardener		
			Min Max Recom.
			Refer to Page 2
		SUITABLE SUBSTRATES	Prepared rusty steel. Aged tightly adhering coatings. Prepared concrete, aluminium and galvanised steel.
		APPLICATION METHODS	Brush, roller, conventional or airless spray.

DUREBILD® STE

Standard Hardener						
COATING THICKNESS			APPLICATION CONDITIONS			
	Min	Max	Recom.	Min	Max	
Wet film per coat (microns)	120	250	150	Air Temperature	10°C	45°C
Dry film per coat (microns)	100	210	125	Substrate Surface Temperature	10°C	45°C
				Relative Humidity		85%
SOLIDS BY VOLUME	84% (White)			POT LIFE	90 Minutes (4L, 25°C)	
VOC LEVEL	<230 g/L (White, untinted)					
Drying characteristics at 125 microns dry film thickness						
Temperature	Humidity	Touch	Handle	Full Cure	Overcoat Min	Max
10° C	50%	14 Hours	36 Hours	7 Days	36 Hours	4 Weeks*
15° C	50%	10 Hours	24 Hours	7 Days	24 Hours	4 Weeks*
25° C	50%	6 Hours	14 Hours	7 Days	14 Hours	4 Weeks*
TYPICAL SPREADING RATE AT RECOMMENDED DRY FILM BUILD				A spreading rate of 6.7 sq. metres per litre corresponds to 125 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.		

Cold Cure Hardener						
COATING THICKNESS			APPLICATION CONDITIONS			
	Min	Max	Recom.	Min	Max	
Wet film per coat (microns)	120	250	150	Air Temperature	5°C	45°C
Dry film per coat (microns)	100	210	125	Substrate Surface Temperature	5°C	45°C
				Relative Humidity		85%
SOLIDS BY VOLUME	84% (White)			POT LIFE	60 Minutes (4L, 25°C)	
VOC LEVEL	<210 g/L (White, untinted)					
Drying characteristics at 125 microns dry film thickness						
Temperature	Humidity	Touch	Handle	Full Cure	Overcoat Min	Max
5° C	50%	14 Hours	28 Hours	7 Days	28 Hours	4 Weeks*
10° C	50%	13 Hours	24 Hours	7 Days	24 Hours	4 Weeks*
15° C	50%	12 Hours	18 Hours	7 Days	18 Hours	4 Weeks*
25° C	50%	6 Hours	9 Hours	7 Days	9 Hours	4 Weeks*
TYPICAL SPREADING RATE AT RECOMMENDED DRY FILM BUILD				A spreading rate of 6.7 sq. metres per litre corresponds to 125 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.

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

Use of fast or low temperature hardeners may result in increased yellowing and a reduction of gloss level.

* When used for non-immersion conditions. Refer to PRECAUTIONS section for overcoating intervals and requirements for immersion service.

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 Maintenance	Hand or Power tool clean AS1627.2 St 3 Abrasive blast AS1627.4 Class 1	Spot Prime	DUREBILD® STE	125 Microns
		1st Coat	DUREBILD® STE	125 Microns
		2nd Coat	WEATHERMAX™ HBR	100 Microns
STEEL Immersion -Salt or Freshwater	Abrasive blast to AS1627.4 Class 3.0	1st Coat	DUREBILD® STE	125 Microns
		2nd Coat	DUREBILD® STE (untinted colour only)	125 Microns
CONCRETE	Acid etch, or sweep blast. Dust off, wash clean with water and allow to dry.	1st Coat	DUREBILD® STE	125 Microns
		2nd Coat	DUREBILD® STE (Thin first coat 10-15%)	125 Microns
ALUMINIUM	Clean, degrease and abrade surface by whip blasting.	1st Coat	DUREBILD® STE	125 Microns

SURFACE PREPARATION	Round off all rough welds, sharp edges and remove weld spatter. Remove grease, oil and other contaminants in accordance with AS1627.1. Rust, millscale, oxide deposits and old paint films on metal surfaces should be removed by hand or power tool (AS1627.2 St 3) cleaning as a minimum. Coating performance is proportional to the degree of surface preparation and abrasive blast cleaning to a minimum AS1627.4 Class 2 is preferred for more severe environments. Immersed steel must be prepared to AS1627.4 Class 3.
APPLICATION	Stir contents of each can thoroughly with a broad flat stirrer using a stirring, lifting action or use a power mixer. Ensure bases have been tinted to the correct colour before use – DULUX ASSUMES NO RESPONSIBILITY FOR THE APPLICATION OF AN INCORRECT COLOUR. Mix the contents of both packs together thoroughly using a power mixer and allow to stand for 10 minutes. Box all containers before use to ensure colour consistency. Remix thoroughly before using.
BRUSH/ROLLER	Apply even coats of the mixed material to the prepared surface. When brushing and rolling additional coats may be required to attain the specified thickness.
CONVENTIONAL SPRAY	Thinning is not normally required, however a small amount (5% or less by volume) of Dulux® Epoxy Thinner (920-08925) can be added. <u>Typical Set-up</u> Graco Delta Gun: 1.8m (239543) Pressure at Pot: 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 45:1 or 56:1 Xtreme with a fluid tip of 17–21 thou (0.43-0.53mm). Thinning is not normally required but up to 50ml/litre of Dulux® Epoxy Thinner (920-08925) may be added to ease 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® 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. Do not apply at temperatures below 10°C when using Standard hardener or below 5°C when using Cold Cure hardener. Do not apply at relative humidity above 85% or when the surface is less than 3°C above the dewpoint. When used with a white or pastel colour the Cold Cure hardener will impart a yellow tone that will darken with time. When used for immersion conditions the maximum overcoat interval is 3 days at 25°C. The coating MUST be fully cured and solvent free prior to being placed under immersion conditions. For best results in water immersion conditions replace Dulux® Epoxy Thinner (920-08925) with Dulux® CR Reducer (965-63020). Do not use as a primer over galvanised steel when using Cold Cure hardener as delamination can occur. Use of fast or low temperature hardeners may result in increased yellowing and a reduction of gloss level. Note the Aluminium finish is not a decorative coating and colour variations will occur due to different application techniques. Aluminium containing colours are not recommended for acidic and alkaline conditions.
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 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.

MATERIAL SAFETY DATA SHEET is available from Customer Service (132377) or www.duluxprotectivecoatings.com.au

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PACKAGING	Available in 4 litre and 15 litre packs
TRANSPORTATION WEIGHT	1.73 kg/litre (Average of components)
DANGEROUS GOODS	Part A: Class 3 UN 1263 Part B: Class 8,3 UN 2734

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