DUREBILD® STE Glass Flake

Surface Tolerant Glass Flake Reinforced Epoxy Coating PC 239

FEATURES

- SUPERIOR SURFACE WETTING PROPERTIES AND CORROSION RESISTANCE
- HIGH PERFORMANCE MAINTENANCE COATING FOR NEW OR EXISTING STEEL
- EXCELLENT BARRIER FOR IMMERSION OR SPLASH ZONE
- IDEAL MAINTENANCE COATING OVER MOST WELL ADHERED AGED COATINGS
- SELF PRIMING FINISH
- CAN BE APPLIED UP TO 500 MICRONS DFT IN A SINGLE COAT
- GOOD ABRASION RESISTANCE

USES

DUREBILD STE® Glass Flake has been developed specifically for Australasian 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. DUREBILD® STE Glass Flake 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 Glass Flake 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 3750.1

RESISTANCE GUIDE

HEAT RESISTANCE	Up to 120°C dry heat.
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.
SOLVENTS	Resists splash and spillage of most hydrocarbon solvents, refined petroleum products and most common alcohols.
ACIDS	Suitable for splash and spillage of mild acids.
ALKALIS	Suitable for splash and spillage of strong alkalis.
SALTS	Excellent resistance to neutral and alkali salts.
WATER	Excellent resistance to immersion in fresh and salt water.
ABRASION	Good when fully cured.

TYPICAL PROPERTIES AND APPLICATION DATA

CLASSIFICATION	Two Pack Glass Reinforced Epoxy	
FINISH	Semi Gloss	
COLOUR	Mid Grey, Black & limited MTO factory made colours.	
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	775-51833	Mid Grey
	775-52129	Black
	976-84539	Standard Hardener
	976-84685	Cold Cure Hardener

APPLICATION CONDITIONS

Refer to Page 2

	Min	Max	Recom.
Wet film per coat (microns)	**Refer to Page 2**		
Dry film per coat (microns)			

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 Glass Flake

Standard Hardener

COATING THICKNESS

	Min	Max	Recom.
Wet film per coat (microns)	240	600	300
Dry film per coat (microns)	200	500	250

APPLICATION CONDITIONS

	Min	Max
Air Temperature	10°C	45°C
Substrate Surface Temperature	10°C	45°C
Relative Humidity		85%
Concrete Moisture Content		<10%

SOLIDS BY VOLUME 84% (Black)
VOC LEVEL <210 g/L (Black)

POT LIFE 90 Minutes (4L, 25°C)

Drying characteristics at 250 microns dry film thickness

Temperature	Humidity	Touch	Handle	Full Cure	Overcoat Min	Overcoat 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 3.4 sq. metres per litre corresponds to 250 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

	Min	Max	Recom.
Wet film per coat (microns)	240	600	300
Dry film per coat (microns)	200	500	250

APPLICATION CONDITIONS

	Min	Max
Air Temperature	5°C	45°C
Substrate Surface Temperature	5°C	45°C
Relative Humidity		85%
Concrete Moisture Content		<10%

SOLIDS BY VOLUME 84% (Black)
VOC LEVEL <190 g/L (Black)

POT LIFE 60 Minutes (4L, 25°C)

Drying characteristics at 250 microns dry film thickness

Temperature	Humidity	Touch	Handle	Full Cure	Overcoat Min	Overcoat 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 3.4 sq. metres per litre corresponds to 250 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	1st Coat 2nd Coat	DUREBILD® STE GF DUREBILD® STE GF	250 Microns 250 Microns
STEEL New Construction	Abrasive blast AS1627.4 Class 2.5	1st Coat 2nd Coat	DUREPON® P14 DUREBILD® STE GF	75 Microns 250 Microns
STEEL Immersion -Salt or Freshwater	Abrasive blast to AS1627.4 Class 3.0 (In marine piles tidal zone obtain maximum blast possible.)	1st Coat Or 1st Coat 2nd Coat	DUREBILD® STE GF DUREBILD® STE GF DUREBILD® STE GF	500 Microns 250 Microns 250 Microns
CONCRETE	Clean surface to remove contaminants. Diamond grind, track or light-shot blast. Remove dust.	1st Coat 2nd Coat	DUREBILD® STE GF DUREBILD® STE GF (Thin first coat 10-15%)	250 Microns 250 Microns
ALUMINIUM	Clean, degrease and abrade surface by whip blasting.	1st Coat	DUREBILD® STE GF	250 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. 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. 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	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. Typical Set-up 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) and an air supply capable of delivering 550-690 kPa (80 -100 psi) at the pump. 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 solvent free prior to being placed under immersion conditions as a tanklining. For best results in water immersion conditions replace Dulux® Epoxy Thinner (920-08925) with Dulux® CR Reducer (965-63020). In tidal areas early immersion will result in loss of some of the coating but this will not affect performance. 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.
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 15 litre packs
TRANSPORTATION WEIGHT	1.61 kg/litre (Average of components)
DANGEROUS GOODS	Part A: Class 3 UN 1263 Part B: Class 8,3 UN 2734