DUREMAX® GFX

High Performance Surface Tolerant Glass Flake Epoxy PC 256

FEATURES

- HIGH GLASS FLAKE CONTENT - EXCELLENT BARRIER FOR IMMERSION OR SPLASH ZONE
- SUPERIOR RESIN TECHNOLOGY FOR SURFACE WETTING AND CORROSION RESISTANCE
- HIGH PERFORMANCE MAINTENANCE COATING FOR NEW OR EXISTING STEEL
- SELF PRIMING FINISH – HIGH SOLIDS AND HIGH BUILD FORMULATION
- GOOD ABRASION AND CHEMICAL RESISTANCE

USES

DUREMAX® GFX is a high solids, high build glass flake reinforced epoxy developed to deliver long term corrosion resistance. Ideally suited to protecting new steelwork from atmospheric and marine corrosion including coastal and off-shore structures, above and below the water-line.

The adhesion strength of DUREMAX® GFX allows it to be used as a high performance maintenance coating over hand, power tool or high-pressure water cleaned surface. DUREMAX® GFX can be topcoated with a wide range of coating types.

SPECIFICATIONS

AS 3750.1-1994 “Paints for steel structures - Epoxy mastic (two-pack) - For rusted steel”
AS 4352-2005 “Tests for Coating Resistance to Cathodic Disbondment”. Group A classification (When applied in two coats at 250 µm DFT per coat directly applied to abrasive blast cleaned steel - AS1627.4 Class 3)
AS/NZ 4020:2005 - suitable for use with potable water when using untinted Mid Grey cured with Standard Hardener or Cold Cure Hardener. Refer to your Dulux Protective Coatings Consultant for details.

RESISTANCE GUIDE

WEATHERABILITY	Will yellow with time and chalk on exterior exposure. Neither yellowing nor chalking detracts 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
HEAT RESISTANCE	Up to 120°C dry heat	**WATER**	Excellent resistance to immersion in fresh and salt water
SALTS	Excellent resistance to neutral and alkaline salts	**ALKALIS**	Good resistance to splash and spillage of strong alkalis
ACIDS	Suitable for splash and spillage of mild acids	**ABRASION**	Good when fully cured

TYPICAL PROPERTIES AND APPLICATION DATA (STANDARD HARDENER)

CLASSIFICATION	Two Pack Glass Flake Reinforced Epoxy
FINISH	Semi Gloss
COLOUR	Mid Grey and Black
COMPONENTS	Two
VOLUME SOLIDS	>85% (Black)
VOC LEVEL	<210 g/L (Black)
FLASH POINT	>23°C
POT LIFE	90 minutes (4 litre kit, 25°C)
MIXING RATIO V/V	Part A : 4 Part B : 1
THINNER	920-08925 Dulux® Epoxy Thinner
THINNER - IMMERSION	965-63020 Dulux® CR Reducer
PRODUCT CODE	775-H0095 Mid Grey 775-H0094 Black 976-H0096 Standard Hardener 976-H0126 Cold Cure Hardener

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)	240	600	300
Dry film per coat (µm)	200	500	250

SUITABLE SUBSTRATES	Prepared rusty steel, aged tightly adhering coatings, prepared concrete Aluminium and galvanised steel
PRIMERS	Most Dulux® two pack primers
APPLICATION METHODS	Conventional, airless, or air assisted spray

DRYING CHARACTERISTICS AT 250 µm DRY FILM THICKNESS* (STANDARD HARDENER)

					OVERCOAT	
Temperature	**Humidity**	**Touch**	**Handle**	**Full Cure**	**Min**	**Max[1]**
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

*These figures are a guide only, as ventilation, film thickness, humidity, thinning and other factors will influence the rate of drying.
[1]**If the maximum overcoat interval is exceeded then the surface MUST be abraded to ensure maximum intercoat adhesion.**

SPREADING RATE
with Standard Hardener
assuming no losses

3.4 square metres per litre equals 250 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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COLD CURE HARDENER

COATING THICKNESS (MICRONS)

	Min	Max	Recommended
Wet film per coat (µm)	240	600	300
Dry film per coat (µm)	200	500	250

SOLIDS BY VOLUME	>86% (Black)
VOC LEVEL	<190 g/L (Black)
FLASH POINT	>23°C
POT LIFE	60 minutes (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 250 µm DRY FILM THICKNESS* (COLD CURE HARDENER)

					OVERCOAT	
Temperature	**Humidity**	**Touch**	**Handle**	**Full Cure**	**Min**	**Max[1]**
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

*These figures are a guide only, as ventilation, film thickness, humidity, thinning and other factors will influence the rate of drying

[1] **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

NOTE: Figures shown are for non-immersion conditions. Refer to PRECAUTIONS section for overcoating intervals and requirements for immersion service

SPREADING RATE
with Cold Cure Hardener
assuming no losses

3.4 square metres per litre equals 250 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 OR MAINTENANCE	Immersion AS2312.1 Table C1 System EVH3	Abrasive blast clean AS1627.4 Class 3.0	1st Coat 2nd Coat	Duremax® GFX Duremax® GFX	250 µm 250 µm
STEEL – NEW	Very high corrosivity (AS2312.1 Cat C5) Exceeds System EHB6	Abrasive blast clean AS1627.4 Class 2.5	1st Coat 2nd Coat 3rd Coat	Zincanode® 402 Duremax® GFX Duremax® GFX	75 µm 250 µm 250 µm
STEEL – NEW	Very high corrosivity (AS2312.1 Cat C5) System EVH3	Abrasive blast clean AS1627.4 Class 2.5	1st Coat 2nd Coat 3rd Coat	Durepon® P14 Duremax® GFX	75 µm 400 µm
STEEL – MAINTENANCE	Exterior	Power tool clean AS1627.2 St 3 or Abrasive blast AS1627.4 Class 2	1st Coat 2nd Coat	Duremax® GFX Duremax® GFX	250 µm 250 µm
CONCRETE	Exterior/Interior	Remove release agents and other surface contaminants	1st Coat 2nd Coat	Duremax® GFX (Thin 10-15%) Duremax® GFX	250 µm 250 µm
ALUMINIUM	Exterior/Interior	Clean, degrease and abrade surface	1st Coat	Duremax® GFX	250 µm

NOTE: If application is by brush or roller, additional coats will be necessary to achieve the minimum DFT

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SURFACE PREPARATION	**Steel**: Round off all rough welds, sharp edges and remove weld spatter. Remove contaminants in accordance with AS1627.1 Part 2.2 with Gamlen CA 1 (a free-rinsing, alkaline detergent) according to the manufacturer's written instructions and all safety warnings. Abrasive blast clean to AS1627.4 Class 2.5 minimum. **Immersed steel**: Abrasive blast cleaned to AS1627.4 Class 3. Remove all dust by brushing or vacuum cleaning. **Steel where abrasive blast cleaning is not viable**: Rust, mill scale, oxide deposits and old paint films on metal surfaces must be removed by power tool cleaning according to AS1627.2. Coating performance is proportional to the degree of surface preparation. **Steel Maintenance**: Wash with Gamlen CA 1 according to the manufacturer's written instructions and all safety warnings. (Refer to AS1627.1 Part 2.2). Remove unsound coatings. Feather back edges to remove ridges. Abrade entire surface of tightly adhering remaining coating to provide a suitable key for the new coating system. Remove all red rust by power tool cleaning in accordance with AS/NZ 1627:2 Class 2. Remove all residues. Spot prime bare steel. **Concrete**: Concrete must be at least 28 days old before coating. Remove all laitance, form release, curing compounds, oil, grease and other surface contaminants. Fill any large cracks or voids using Luxepoxy® Filler.
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 AirPro: 1.8mm (239542); 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 or 56:1 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® Consultant 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 completely solvent free prior to being placed under immersion conditions as a tank lining. 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	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. Epoxies must be abraded if recoated outside the recoat window.
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 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 spraying, users must comply with their 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.

COMPANY INFORMATION

Dulux Protective Coatings a division of

DuluxGroup (Australia) Pty Ltd
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PACKAGING, TRANSPORT AND STORAGE

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