PC 256  August 2018 Page 1 of 3

DUREMAX® GFX
High Performance Surface Tolerant Glass Flake Epoxy

FEATURES
• HIGH GLASS FLAKE CONTENT
• SUPERIOR RESIN TECHNOLOGY FOR SURFACE WETTING AND CORROSION RESISTANCE
• HIGH PERFORMANCE MAINTENANCE COATING FOR NEW OR EXISTING STEEL
• EXCELLENT BARRIER FOR IMMERSION OR SPLASH ZONE
• 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)

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

APPLICATION CONDITIONS

FINISH
Semi Gloss

APPLICATION CONDITIONS
Min Max
Air Temp. 10°C 45°C
Substrate Temp. 10°C 45°C
Relative Humidity 85%
Concrete Moisture <10%

COATING THICKNESS (MICRONS)

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

VOC LEVEL
<210g/L (Black)

MIXING RATIO V/V
Part A : 4 Part B : 1

THINNER
920-08925 Dulux® Epoxy Thinner

PRODUCT CODE
775-H0095 Mid Grey
775-H0094 Black
976-H0096 Standard Hardener
976-H0126 Cold Cure Hardener

ABRASION
Prepared rusty steel, aged tightly adhering coatings, prepared concrete, aluminium and galvanised steel

SUITABLE SUBSTRATES

PRIMERS
Most Dulux® two pack primers

APPLICATION METHODS
Conventional, airless, or air assisted spray

SPREADING RATE
3.4 square metres per litre equals 250 μm dry film thickness

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

NOTES:
- Practical spreading rates will vary depending on such factors as application method, ambient conditions, surface porosity and roughness.

OVERCOAT

Temperature Humidity Touch Handle Full Cure 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 Days 4 Weeks
25°C 50% 6 Hours 14 Hours 7 Days 14 Days 4 Weeks

*These figures are 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.

SPREADING RATE
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.
DUREMAX® GFX
COLD CURE HARDENER

COATING THICKNESS (MICRONS)

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wet film per coat (μm)</td>
<td>240</td>
<td>600</td>
<td>300</td>
</tr>
<tr>
<td>Dry film per coat (μm)</td>
<td>200</td>
<td>500</td>
<td>250</td>
</tr>
</tbody>
</table>

APPLICATION CONDITIONS

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Temperature</td>
<td>5°C</td>
<td>45°C</td>
</tr>
<tr>
<td>Substrate Surface Temperature</td>
<td>5°C</td>
<td>45°C</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>85%</td>
<td></td>
</tr>
<tr>
<td>Concrete Moisture Content</td>
<td>&lt;10%</td>
<td></td>
</tr>
</tbody>
</table>

SOLIDS BY VOLUME

|                | 84%  |
| VOC LEVEL      | <190 g/L (Black) |
| FLASH POINT    | >23°C |
| POT LIFE       | 60 minutes (4 litre kit, 25°C) |

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

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Humidity</th>
<th>Touch</th>
<th>Handle</th>
<th>Full Cure</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>5°C</td>
<td>50%</td>
<td>14 Hours</td>
<td>28 Hours</td>
<td>7 Days</td>
<td>28 Hours</td>
<td>4 Weeks</td>
</tr>
<tr>
<td>10°C</td>
<td>50%</td>
<td>13 Hours</td>
<td>24 Hours</td>
<td>7 Days</td>
<td>24 Hours</td>
<td>4 Weeks</td>
</tr>
<tr>
<td>15°C</td>
<td>50%</td>
<td>12 Hours</td>
<td>18 Hours</td>
<td>7 Days</td>
<td>18 Hours</td>
<td>4 Weeks</td>
</tr>
<tr>
<td>25°C</td>
<td>50%</td>
<td>6 Hours</td>
<td>9 Hours</td>
<td>7 Days</td>
<td>9 Hours</td>
<td>4 Weeks</td>
</tr>
</tbody>
</table>

*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

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.

<table>
<thead>
<tr>
<th>SURFACE</th>
<th>ENVIRONMENT</th>
<th>PREPARATION GUIDE</th>
<th>SYSTEM</th>
<th>DFT (μm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEEL – NEW OR MAINTENANCE</td>
<td>Immersion AS2312.1 Table C1 System EVH3</td>
<td>Abrasive blast clean AS1627.4 Class 3.0</td>
<td>1st Coat</td>
<td>Duremax® GFX 250 μm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2nd Coat</td>
<td>Duremax® GFX 250 μm</td>
</tr>
<tr>
<td>STEEL – NEW</td>
<td>Very high corrosivity (AS2312.1 Cat C5) Exceeds System EHB6</td>
<td>Abrasive blast clean AS1627.4 Class 2.5</td>
<td>1st Coat</td>
<td>Zincanode® 402 75 μm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2nd Coat</td>
<td>Duremax® GFX 250 μm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3rd Coat</td>
<td>Duremax® GFX 250 μm</td>
</tr>
<tr>
<td>STEEL – NEW</td>
<td>Very high corrosivity (AS2312.1 Cat C5) System EVH3</td>
<td>Abrasive blast clean AS1627.4 Class 2.5</td>
<td>1st Coat</td>
<td>Durepon® P14 75 μm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2nd Coat</td>
<td>Duremax® GFX 400 μm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3rd Coat</td>
<td>Duremax® GFX 400 μm</td>
</tr>
<tr>
<td>STEEL – MAINTENANCE</td>
<td>Exterior</td>
<td>Power tool clean AS1627.2 St 3 or Abrasive blast AS1627.4 Class 2</td>
<td>1st Coat</td>
<td>Duremax® GFX 250 μm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2nd Coat</td>
<td>Duremax® GFX 250 μm</td>
</tr>
<tr>
<td>CONCRETE</td>
<td>Exterior/Interior</td>
<td>Remove release agents and other surface contaminants</td>
<td>1st Coat</td>
<td>Duremax® GFX (Thin 10-15%) 250 μm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2nd Coat</td>
<td>Duremax® GFX 250 μm</td>
</tr>
<tr>
<td>ALUMINIUM</td>
<td>Exterior/Interior</td>
<td>Clean, degrease and abrade surface</td>
<td>1st Coat</td>
<td>Duremax® GFX 250 μm</td>
</tr>
</tbody>
</table>

NOTE: If application is by brush or roller, additional coats will be necessary to achieve the minimum DFT.
**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 bfushing 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<sup>®</sup> Filler.

**APPLICATION**

**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<sup>®</sup> Epoxy Thinner (920-08925) can be added.

**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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> Epoxy Thinner (920-08925) with Dulux<sup>®</sup> 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<sup>®</sup> 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 8.3–10.3 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. Fire with foam, CO2 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

DuluxGroup (Australia) Pty Ltd
166 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

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PC 256
August 2018
Page 3 of 3