DUREBILD® STE GF
Surface Tolerant Glass Flake Reinforced Epoxy Coating

FEATURES
• EXCELLENT 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 advanced epoxy technology. It is principally used as a high build, heavy duty barrier coating over power tool or high-pressure water cleaned surfaces where blasting is impractical or not allowed. This coating can also be used for new work as a high performance intermediate coat. The glass flake formulation is suitable for fresh and salt-water immersion over abrasive blast cleaned steel. DUREBILD® STE Glass Flake can be topcoated with a wide range of coating types and is available with a bloom-free cold cure hardener.

SPECIFICATIONS
Approved to APAS 2977
AS/NZS 3750.1

RESISTANCE GUIDE

SOLVENTS
Resists splash and spillage of most hydrocarbon solvents, refined petroleum products and most common alcohols.

WATER
Excellent resistance to fresh and salt water and suitable for immersion

ALKALIS
Suitable for 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 Reinforced Epoxy

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

COATING THICKNESS (MICRONS)
Wet film per coat (μm)
42°C 240 600 300

Dry film per coat (μm)
200 500 250

SUITABLE SUBSTRATES

SUITABLE PRIMERS
Dulux® two pack primers

APPLICATION METHODS
Brush, roller, conventional or airless spray

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 and surface porosity and roughness.

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

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Humidity</th>
<th>Touch</th>
<th>Handle</th>
<th>Full Cure</th>
<th>OVERCOAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>10°C</td>
<td>50%</td>
<td>14 Hours</td>
<td>36 Hours</td>
<td>7 Days</td>
<td>36 Hours</td>
</tr>
<tr>
<td>15°C</td>
<td>50%</td>
<td>10 Hours</td>
<td>24 Hours</td>
<td>7 Days</td>
<td>24 Hours</td>
</tr>
<tr>
<td>25°C</td>
<td>50%</td>
<td>6 Hours</td>
<td>14 Hours</td>
<td>7 Days</td>
<td>14 Hours</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.

1If the maximum overcoat interval is exceeded then the surface MUST be abraded to ensure maximum intercoat adhesion.
## DUREBILD® STE GF
### COLD CURE HARDENER

#### COATING THICKNESS (MICRONS)

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

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

#### APPLICATION CONDITIONS

<table>
<thead>
<tr>
<th>Application Condition</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% (Black)
- 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.

1If the maximum overcoat interval is exceeded then the surface MUST be abraded to ensure maximum intercoat adhesion. **NOTE:** Figures shown are for non-immersion conditions. When used for immersion conditions the maximum overcoat interval is 3 days. The coating MUST be fully cured and completely solvent free prior to being placed under immersion conditions. Refer to PRECAUTIONS section.

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

#### 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 and 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</td>
<td>Very high corrosivity (AS2312.1 Cat C5) System PUR 5</td>
<td>Abrasive blast clean AS1627.4 Class 2.5</td>
<td>1st Coat</td>
<td>Zincanode® 402</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2nd Coat</td>
<td>Durebild® STE GF</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3rd Coat</td>
<td>Weathermax® HBR</td>
</tr>
<tr>
<td>STEEL – MAINTENANCE</td>
<td>Very high corrosivity</td>
<td>Power tool clean AS1627.2 St 3 or Abrasive blast AS1627.4 Class 1</td>
<td>Spot prime</td>
<td>Durebild® STE GF</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1st Coat</td>
<td>Durebild® STE GF</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2nd Coat</td>
<td>Weathermax® HBR</td>
</tr>
<tr>
<td>STEEL – NEW OR MAINTENANCE</td>
<td>Immersion Exceeds System EVH2</td>
<td>Abrasive blast clean AS1627.4 Class 3.0</td>
<td>1st Coat</td>
<td>Durebild® STE GF</td>
</tr>
<tr>
<td>STEEL – NEW OR MAINTENANCE</td>
<td>Immersion Exceeds System EVH3</td>
<td>Abrasive blast clean AS1627.4 Class 3.0</td>
<td>1st Coat</td>
<td>Durebild® STE GF</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2nd Coat</td>
<td>Durebild® STE GF</td>
</tr>
<tr>
<td>CONCRETE</td>
<td>Exterior</td>
<td>Remove release agents and other surface contaminants</td>
<td>1st Coat</td>
<td>Durebild® STE GF (thin first coat 10-15%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2nd Coat</td>
<td>Weathermax® HBR</td>
</tr>
<tr>
<td>CONCRETE</td>
<td>Immersion</td>
<td>Remove release agents and other surface contaminants</td>
<td>1st Coat</td>
<td>Durebild® STE GF (thin first coat 10-15%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2nd Coat</td>
<td>Durebild® STE GF</td>
</tr>
</tbody>
</table>

**NOTE:** If application is by brush or roller, additional coats will be necessary to achieve the minimum DFT and full opacity.
**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. Degrease with Gamlen CA 1 (a free-rinsing, alkaline detergent) according to the manufacturer’s written instructions and all safety warnings. Abrasive blast clean to a minimum of AS1627.4 Class 2.5.

**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.

**Concrete:** Concrete must be at least 28 days old before coating. Remove all laitance, form release, curing compounds, oil, grease and other surface contaminants.

**Horizontal surfaces:** Diamond grind, track or light shot-blast concrete floors to provide a profile. Remove all dust by vacuum cleaning. Fill any large cracks or voids using Luxepoxy® 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**

Typical Set-up

- Graco AirPro: 1.8mm (239542)
- Pressure at Triton 308: 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 Xtrete 45:1 or 56:1 with a fluid tip of 17-21 thou (0.43-0.53mm) and an air supply capable of delivering 550-680 kPa (60-100 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 for immersion conditions the maximum overlap interval is 3 days at 25°C. The coating MUST be fully cured and solvent free prior to being place under immersion conditions. 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 on galvanized 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, dry, clean and dust free area. Keep containers closed at all times.

**HANDLING**

As with any chemical, ingestion, inhalation or 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 vapor/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 SMOK. Fight 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

A.B.N. 67 000 049 427

150 Hut Park Road, Lower Hutt, NZ

A.B.N. 55 133 404 118

Dulux, Durebild, Luxepoxy, Weathermax and Zincanite are registered trade marks of DuluxGroup (Australia) Pty Ltd.