METALSHIELD®
ALL SURFACE PRIMER

Universal Metal Primer

LI 014

FEATURES
• FAST DRYING
• CONTAINS ZINC PHOSPHATE
• VERY GOOD CORROSION PROTECTION
• SUITABLE FOR PRIMING ALL METALS INCLUDING ALUMINIUM AND GALVANISED STEEL
• SUITABLE FOR FIBREGLASS

USES
METALSHIELD® ALL SURFACE Primer is a single pack, fast drying, zinc phosphate primer. This anti-corrosive primer provides superior adhesion properties making it the preferred primer for paint systems in mildly corrosive environments.

METALSHIELD® ALL SURFACE Primer can be used over suitably prepared fibreglass, ferrous and non ferrous metals including mild steel, aluminium and galvanised steel. Typical areas of application include structural frames and trusses for factories and warehouses, farm equipment and other light fabricated steelwork.

SPECIFICATIONS

RESISTANCE GUIDE

| WEATHERABILITY | Will chalk on exterior exposure. Use a weatherable topcoat. | SOLVENTS | Withstands intermittent splash and spillage of aliphatic and aromatic hydrocarbons |
| HEAT RESISTANCE | Up to 65°C dry heat | WATER | Resists rain and condensation. Not recommended for permanently damp or immersed exposure |
| SALTS | Excellent resistance to splash and spillage of neutral salt solutions | ALKALIS | Not recommended where fumes, splash or spillage may occur |
| ACIDS | Not recommended where fumes, splash or spillage may occur | ABRASION | Good when fully cured |

TYPICAL PROPERTIES AND APPLICATION DATA

CLASSIFICATION
All metal zinc phosphate primer

FINISH
Flat

COLOUR
Neutral Grey

COMPONENTS
One

VOLUME SOLIDS
15%

VOC LEVEL
<722g/L

FLASH POINT
-18°C

POT LIFE
Not applicable

MIXING RATIO V/V
Single Pack

THINNER – BRUSH
965-63023 Dulux® Urethane Thinner

THINNER – SPRAY
965-63023 Dulux® Urethane Thinner or acetone

PRODUCT CODE
366-H0070 Neutral Grey

APPLICATION CONDITIONS

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Temp.</td>
<td>10°C</td>
<td>45°C</td>
</tr>
<tr>
<td>Substrate Temp.</td>
<td>10°C</td>
<td>45°C</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>85%</td>
<td></td>
</tr>
</tbody>
</table>

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>Dry film per coat (μm)</td>
<td>10</td>
<td>15</td>
<td>10</td>
</tr>
</tbody>
</table>

| Prep | Mild steel, aluminium, galvanized steel, other non ferrous metals and fibreglass |

SUITABLE SUBSTRATES

PRIMERS
Not applicable

TOPCOATS
Dulux® Metalshield® topcoats

APPLICATION METHODS
Brush, roller, conventional and HVLP spray

DRYING CHARACTERISTICS AT 10 μm DRY FILM THICKNESS

<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>25°C</td>
<td>50%</td>
<td>20 minutes</td>
<td>1 Hour*</td>
<td>7 Days</td>
<td>1 Hour Extended</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.

SPREADING RATE
15.0 square metres per litre equals 10 μm dry film thickness

NOTE: Practical spreading rates will vary depending on such factors as application method, ambient conditions, surface porosity and roughness.
## METALSHIELD® ALL SURFACE PRIMER

### 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>Low corrosivity (AS2312.1 Cat C1-2)</td>
<td>Power tool clean AS1627.2 St 3 Abrasive blast AS1627.4 Class 2</td>
<td>1st Coat Metalshield® All Surface Primer</td>
<td>10 μm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2nd Coat Metalshield® Premium</td>
<td>50 μm</td>
</tr>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2nd Coat Metalshield® QD Topcoat</td>
<td>50 μm</td>
</tr>
<tr>
<td>NON FERROUS METALS AND FIBREGLASS</td>
<td>Exterior/Interior</td>
<td>Clean, degrease and abrade surface</td>
<td>1st Coat Metalshield® All Surface Primer</td>
<td>10 μm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2nd Coat Metalshield® Premium</td>
<td>50 μm</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 with a blast profile of 40 – 70 microns. Remove all dust burning or vacuum. **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 Class 2. Coating performance is proportional to the degree of surface preparation. **Non-ferrous metals:** Round off all sharp edges. Remove grease, oil and other contaminants in accordance with AS1627.1. Whip blast with fine non-metallic media such as plastic, glass or garnet to provide a key. Remove all dust with compressed air. Alternatively, degrease and abrade the surface with a non-metallic abrasive pad wetted with Gamlen CA 1 (a free-rinsing, alkaline detergent) and water. Rinse thoroughly with fresh potable water.

### APPLICATION

**Brush/Roller:** Mix each can thoroughly using a power mixer until the contents are uniform. Remix thoroughly before application. Suitable for small areas only. When brushing and rolling additional coats may be required to attain the specified thickness.

**Conventional Spray:** Thin up to 150 ml/litre with Acetone or Dulux® Urethane Thinner (965-60323) to aid atomisation. Apply in multiple wet coats overlapping each pass 50%.

**Airless Spray 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 written consent of Dulux® Australia. Do not apply at temperatures below 10°C. Do not apply at relative humidity above 85% or when the surface is less than 3°C above the dewpoint. Do not overcoat before the minimum overcoat interval or period may occur. The surface can be marked for several days after application. Abrasive blast cleaned surfaces must be primed within 4 hours.

### CLEAN UP

Clean all equipment with Dulux® Urethane Thinner (965-60323) 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.

### 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. Do not apply at temperatures below 10°C. Do not apply at relative humidity above 85% or when the surface is less than 3°C above the dewpoint. Do not overcoat before the minimum overcoat interval or period may occur. The surface can be marked for several days after application. Abrasive blast cleaned surfaces must be primed within 4 hours.

### HANDLING

As with any chemical, ingestion, inhalation and prolonged or repeated skin contact should be avoided by good occupational practice. Eye protection approved to AS1337 must be worn while handling and using. Always wash hands before smoking, eating, drinking or using the toilet.

### USING

Use with good ventilation and avoid inhalation of spray mists and fumes. When spraying, wear combined organic vapour/particulate respirator. Users must always comply with their respective State Spray Painting Regulations at all times.

### 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.