

## NZDU04455 Dulux Dulux Metalshield® Rust Defence Gloss

### Description and Image

Metalshield Rust Defence is a high performance topcoat designed for the protection of all suitably prepared metal surfaces. It can be directly applied to certain metals (see application below). This fast drying technology is ideal for projects that require easy application and quick turnaround. Use in combination with Metalshield primers for exceptional anti-corrosion protection.

For all industrial and commercial application: refer to the Dulux Protective Coatings datasheet.



### Features and Benefits

- Protects all metals against rust and corrosion
- Fast dry modified acrylic, touch dry in 30 mins, recoat in 1 hour
- Excellent Adhesion and Bonding
- Tintable to 1000's of Dulux colours
- Retains Colour and Sheen for Longer than Alkyd Based Paints
- Available in Gloss and Satin Finishes

### Uses

Use Dulux Metalshield Rust Defence Gloss as a topcoat for suitably prepared metal substrates.

✓ Interior ✓ Exterior

**Precautions and Limitations**

Read Data Sheet, SAFETY DATA SHEET and any precautions on container labels. SAFETY DATA SHEET is available from Dulux Customer Service on 0800 800 424.

**USE IN RESIDENTIAL AND NON-STRUCTURAL APPLICATIONS ONLY.**

Dulux Metalshield Rust Defence IS NOT suitable for Structural, Infrastructure, Commercial and Industrial fabrications.

Dulux recommends that the Standard AS/NZS 2312 (as updated) be followed using the appropriate Dulux Protective Coatings products when coating Structural, Infrastructure, Commercial and Industrial fabrications.

**DO NOT overextend this product. Metal protection paint systems require a minimum film build to provide necessary protection. If in Doubt apply an additional coat or more to build that protection.**

**DO NOT** apply in conditions outside the parameters stated in this document.

The rate of cure is dependent upon temperature.

**DO NOT** paint at temperatures at or below 10°C or when the temperature may fall below 10°C during the drying period.

Rain or dew will damage the film during the drying period.

**DO NOT** apply at relative humidity above 85% or when the surface is less than 3°C above the dewpoint.

The surface to be coated must be free of moisture, contaminants, mill scale and loose flakes.

Whilst this product is lead free, it contains dispersants and inhibitors which will affect drinking water.

**DO NOT USE** on roofs used for collection of drinking water.

METALSHIELD® RUST DEFENCE™ is isocyanate-free with fast-dry properties, so is well suited for DIY application and touch ups in low wear areas.

For Better and Best metal protection, use in combination with a suitable Metalshield primer and apply a second topcoat.

Always work to apply correct Dry Film Builds when working with Metal Protection Paint systems.

**RANGE**

54X04912 Gloss Vivid White

54X04914 Gloss Deep Base

54X16101 Gloss Ultra Deep Base

54X87663 Gloss Extra Bright Base






54X00070 Gloss Black

Available in 500ml, 1L and 4L pack sizes.

\*Gloss Ultra Deep and Deep base not available in 500ml pack sizes.

**Performance Guide**

Weather <b>Excellent Gloss and chalk resistance on exterior exposure.</b>	Salt <b>Unaffected by splash and spillage of neutral and alkaline salt solutions.</b>
Heat Resistance <b>Up to 55°C dry heat.</b>	Water <b>Very good resistance to fresh and saltwater splash and spillage, but not suitable for immersion.</b>
Solvent <b>Resists splashes of ethanol.</b>	Abrasion <b>Good when fully cured.</b>
Acid <b>Suitable for splash and spillage of mild organic acids.</b>	Alkali <b>Good resistance to splash of most common alkalis.</b>

Typical Properties			
Gloss Level <b>Gloss</b>		Thinner <b>Potable water</b>	
Colour <b>White, an extensive range of colours using the Dulux Colours of New Zealand® Low VOC Tint System, and Black.</b>			
Dulux Colour Base <b>✓ Deep ✓ Ultra Deep ✓ Extra Bright ✓ Vivid White</b>			
Components <b>1</b>		Number of Coats <b>2 minimum</b>	
Toxicity <b>Inhalation: Material may be an irritant to mucous membranes and respiratory tract.</b>  <b>Skin contact: Contact with skin may result in irritation. A skin sensitiser. Repeated or prolonged skin contact may lead to allergic contact dermatitis.</b>  <b>Ingestion: Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract.</b>  <b>Eye contact: May be an eye irritant.</b>		V.O.C. Level <b>&lt;50 g/L (White, untinted)</b>	
Shelf Life <b>2 Years in an unopened container.</b>			
Sanding Properties <b>Sandable when cured. Avoid sanding unless absolutely necessary.</b>			
Pot Life <b>N/A</b>		Touch Dry <b>30 minutes</b>	
Clean Up   <b>Water</b>  Xylene can be used to remove dried coating on equipment.			
Clean Up Description Clean up using Potable Water while the coating is wet.			
Application Methods   <b>Air Spray</b>  <b>Airless Spray</b>  <b>Brush</b>  <b>Roller</b>			
Application Conditions		Solids by Volume	
		<input type="text" value="39"/>	
	Min	Max	Recommended
Wet Film Per Coat (microns)	<input type="text" value="75"/>	<input type="text" value="105"/>	<input type="text" value="90"/>
Dry Film Per Coat (microns)	<input type="text" value="30"/>	<input type="text" value="40"/>	<input type="text" value="35"/>
Recoat Time (min/hours)	<input type="text" value="1 hour"/>	<input type="text" value="Extended"/>	<input type="text" value="2 hours"/>
Theoretical Spread Rate (m <sup>2</sup> /L)	<input type="text" value="13.00"/>	<input type="text" value="9.75"/>	<input type="text" value="11.14"/>
Typical Property Notes			

**DRYING CHARACTERISTICS AT 35um Dry Film Thickness**

Temperature	Humidity	Touch Dry	Handle	Full Cure	OVERCOAT	
					Min	Max
10°C	50%	1.5 hours	6 Hours	7 Days	6 Hours	Extended
15°C	50%	1 Hour	4 Hours	7 Days	4 Hours	Extended
25°C	50%	30 Minutes	2 Hours	7 Days	2 Hours	Extended

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

**SPREADING RATE 11.1 square metres per litre equals 35um dry film thickness.** Assumes no losses.

**NOTE:** Practical Spreading rates will vary depending on such factors as colour, application method, ambient conditions, and surface roughness.

**Application Guide**

Surface Preparation

- Do not apply paint if Relative Humidity is above 85% or temperature is within 3°C of Dew Point. Do not apply if the surface temperature is greater than 40°C or below 10°C, or likely to fall below 10°C during the application or drying period.
- Do not apply paint if the temperature is below 10°C or likely to fall below 10°C during the drying period.

The surface must be free from grease, oil, dirt, rust, mill scale, other oxidation products and contaminants.

**NOTE:** If application is by Brush and Roller, Additional coats will be necessary to achieve the Minimum DFT and Full Opacity.

Users should follow the surface preparation guidelines from the data sheet for any primer selected.

SURFACE	ENVIRONMENT	PREPARATION GUIDE	SYSTEM	DFT (um)
Steel rusted	Low Corrosivity (AS2312 Cat C2)	Wire Brush, Power tools Coarse Sand Paper	1st Coat Metalshield Rust Primer 2nd Coat Metalshield Rust Defence 3rd Coat Metalshield Rust Defence	38um 35um 35um
Steel (Basic)	Very Low Corrosivity (AS2312 Cat C1)	Clean, degrease and abrade the surface#	1st Coat Metalshield Rust Defence 2nd Coat Metalshield Rust Defence	35um 35um
Steel (Better)	Very Low Corrosivity (AS2312 Cat C1)	Clean, degrease and abrade the surface#	1st Coat Metalshield RFU Etch Primer 2nd Coat Metalshield Rust Defence 3rd Coat Metalshield Rust Defence	38um 35um 35um
Steel (Best)	Very Low Corrosivity (AS2312 Cat C1)	Clean, degrease and abrade the surface#	1st Coat Metalshield All Surface Primer 2nd Coat Metalshield Rust Defence 3rd Coat Metalshield Rust Defence	38um 35um 35um
Aluminium (Basic)	Interior / Exterior	Clean, degrease and abrade the surface*	1st Coat Metalshield Rust Defence 2nd Coat Metalshield Rust Defence	35um 35um
Aluminium (Better)	Interior / Exterior	Clean, degrease and abrade the surface*	1st Coat Metalshield RFU Etch Primer 2nd Coat Metalshield Rust Defence 3rd Coat Metalshield Rust Defence	38um 35um 35um
Aluminium (Best)	Interior / Exterior	Clean, degrease and abrade the surface*	1st Coat Metalshield All Surface Primer 2nd Coat Metalshield Rust Defence 3rd Coat Metalshield Rust Defence	38um 35um 35um
Zincalume® (Basic)	Interior / Exterior	Clean, degrease and abrade the surface*	1st Coat Metalshield Rust Defence 2nd Coat Metalshield Rust Defence	35um 35um
Zincalume® (Better)	Interior / Exterior	Clean, degrease and abrade the surface*	1st Coat Metalshield RFU Etch Primer 2nd Coat Metalshield Rust Defence 3rd Coat Metalshield Rust Defence	38um 35um 35um
Zincalume® (Best)	Interior / Exterior	Clean, degrease and abrade the surface*	1st Coat Metalshield All Surface Prime 2nd Coat Metalshield Rust Defence 3rd Coat Metalshield Rust Defence	38um 35um 35um
Galvanised Steel (Basic)	Interior / Exterior	Clean, degrease and abrade the surface*	1st Coat Metalshield Rust Defence 2nd Coat Metalshield Rust Defence	35um 35um
Galvanised Steel (Better)	Interior / Exterior	Clean, degrease and abrade the surface*	1st Coat Metalshield RFU Etch Primer 2nd Coat Metalshield Rust Defence	38um 35um

			3rd Coat Metalshield Rust Defence	35um
Galvanised Steel (Best)	Interior / Exterior	Clean, degrease and abrade the surface*	1st Coat Metalshield All Surface Primer	38um
			2nd Coat Metalshield Rust Defence	35um
			3rd Coat Metalshield Rust Defence	35um
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Colorsteel ® (Basic)	Interior / Exterior	Clean, degrease and abrade the surface*	1st Coat Metalshield Rust Defence	35um
			2nd Coat Metalshield Rust Defence	35um
Colorsteel ® (Better)	Interior / Exterior	Clean, degrease and abrade the surface*	1st Coat Metalshield RFU Etch Primer	38um
			2nd Coat Metalshield Rust Defence	35um
			3rd Coat Metalshield Rust Defence	35um
Colorsteel ® (Best)	Interior / Exterior	Clean, degrease and abrade the surface*	1st Coat Metalshield All Surface Primer	38um
			2nd Coat Metalshield Rust Defence	35um
			3rd Coat Metalshield Rust Defence	35um
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Powdercoat (Basic)	Interior / Exterior	Clean, degrease and abrade the surface*	1st Coat Metalshield Rust Defence	35um
			2nd Coat Metalshield Rust Defence	35um
Powdercoat (Better)	Interior / Exterior	Clean, degrease and abrade the surface*	1st Coat Metalshield RFU Etch Primer	38um
			2nd Coat Metalshield Rust Defence	35um
			3rd Coat Metalshield Rust Defence	35um
Powdercoat (Best)	Interior / Exterior	Clean, degrease and abrade the surface*	1st Coat Metalshield All Surface Primer	38um
			2nd Coat Metalshield Rust Defence	35um
			3rd Coat Metalshield Rust Defence	35um

# On these surfaces abrasion using Coarse Sand Paper (P240 - P320) mechanical or powered sanding equipment is suitable.

\* On these surfaces abrasion can be achieved using a coarse "Scotchbrite®" type scouring pad.

**NOTE: Re Rust Primer use**

Where steel based protected metals like Galvanised Iron, Zinalume®, Colorsteel ® etc. are locally rusted, the rust should be prepared using abrasion techniques to remove ALL Flaky Rust and abraded to remove as much of the remaining rust as possible. The more that is removed the better that Metalshield Rust Primer will perform. Ensure to remove all dust from the rust removal using a moist rag or other. Only Apply Metalshield Rust Primer to areas where Rust is present. Minimise coating non rusted areas.

**NOTE: Re Other Metalshield Primers**

The surface must be free from grease, oil, dirt, rust, mill scale, other oxidation products and contaminants. Users should follow the surface preparation guidelines from the data sheet for any primer selected.

**NOTE: Re Water Based Primer. Dulux Precision All Metal Primer.**

**METALSHIELD® RUST DEFENCE™** may be applied over Dulux Precision All Metal Primer in some instances where an all Water Based System is required. Adhere to the conditions and application requirements for Dulux Precision All Metal Primer when using this product.

**Application Procedure and Equipment**

Mix thoroughly using a paddle stirrer or equivalent until the contents are uniform.

Ensure paint has been tinted to the correct colour before use.

**DULUX® ASSUMES NO RESPONSIBILITY FOR THE APPLICATION OF INCORRECT COLOUR.**

Box all containers to ensure colour consistency. Remix thoroughly before application.

**Roller:** Apply even coats of the material to the prepared surface. Additional coats may be required to attain the specified thickness. Thinning is not normally required; however, up to 50 ml/litre of potable water may be added to aid application.

**Brush:** Apply even coats of the material to the prepared surface. Additional coats may be required to attain the specified thickness. Thinning is not normally required; however, up to 50 ml/litre of potable water may be added to aid application.

**Air spray**

Gun	Fluid Tip	Air Cap	Atomising Pressure	Material Pressure
Graco AirPro	1.4mm	239542	380 - 410 kPa (55 - 60 p.s.i.)	70 - 100 kPa (10 - 15 p.s.i.)

**Airless Spray** - Gun, Pump and spray conditions to be determined by the user. (Graco units recommended)

Do not apply in conditions outside the parameters stated in this document.

The rate of cure is dependent upon temperature.

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.

The surface to be coated must be free of moisture, contaminants, mill scale and loose flakes.

**OVERCOATING:** Degrease with mild detergent using a Scotchbrite® scouring pad, or equivalent, and rinse clean. Test adhesion of existing coating by standard cross hatch adhesion test. If the coating fails, remove it. Abrade the now clean metal surface to provide a good key for the new coating.

**STORAGE:** The product is NOT classified as dangerous goods for transport or storage. Store in well ventilated area under cover and away from sources of heat. 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 Regional Spray Painting Regulations.

**FLAMMABILITY:** This product is non-flammable. On burning will emit toxic fumes.

**WELDING:** Avoid inhalation of fumes if welding surfaces coated with this paint. Grind off coating before welding.

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**Health and Safety**

SDS Number  
**DLXNZ7EN003824**

SDS Link  
[View SDS Link](#)

Personal Equipment  
**Wear protective gloves/protective clothing including eye/face protection. 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.**

Using Safety Precautions  
**CONTAINS:** ISOTHIAZOLINONES (<0.05% BIT, CMIT, MIT)  
May cause an allergic skin reaction.

**SAFETY:** Keep out of reach of children. Read carefully and follow all instructions. Avoid breathing dust, fume, gas, mist, vapours or spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing including eye/face protection.

**FIRE:** If material is involved in a fire use water fog (or if unavailable fine water spray), alcohol resistant foam, standard foam, dry agent (carbon dioxide, dry chemical powder).

**SPILLS & LEAKS:** Clear area of all unprotected personnel. Slippery when spilt. Wear protective equipment. For liquids absorb with sand or soil. Collect and seal in properly labelled drums. Refer to Local Council or State/Territory Land Waste Management Authority for disposal.

**FIRST AID:** If poisoning occurs, contact a Doctor or Poisons Information Centre (Phone Australia 131 126; New Zealand 0800 764 766). If medical advice is needed, have product container or label at hand.

**SWALLOWED:** Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.

**EYE:** If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor. In all cases of eye contamination it is a sensible precaution to seek medical advice.

**SKIN:** Effects may be delayed. If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If swelling, redness, blistering or irritation occurs seek medical assistance.

**INHALED:** Remove from contaminated area. Seek medical advice. Inhalation: Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

**PPE for First Aiders:** Wear safety shoes, overalls, gloves, safety glasses. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

**DO NOT REUSE CONTAINER**

**Please refer to SDS Link. In case of emergency, please call 0800 220 770.**

**Transport and Storage**

Pack A

**54X04912 Gloss Vivid White**

**54X04914 Gloss Deep Base**

**54X16101 Gloss Ultra Deep Base**

**54X87663 Gloss Extra Bright Base**

**54X00070 Gloss Black**

**Figures below for Vivid White Base only.**

Size:

Weight:

500mL 1L 4L

0.71 kg 1.37 kg 5.32 kg

Flash Point

**N/A Water Based**

UN Number

**N/A**

Dangerous Goods Class

**N/A**

Package Group

**N/A**

**Disclaimer**

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Unless Dulux has provided you with a customised, project-specific specification, this Data Sheet does not represent that any particular product or product system will be suitable for your project.

Any information provided in this Data Sheet is given in good faith and is believed by Dulux to be correct at the time of publication. Products and coating systems can be expected to perform as indicated in this Data Sheet, provided the substrate is in good condition, the coatings are applied by a suitably experienced and skilled applicator, and the preparation, application and maintenance is followed strictly as set out in this Data Sheet, and as recommended on the applicable Safety Data Sheets for the relevant products, available from [www.duspecplus.co.nz](http://www.duspecplus.co.nz). Climatic conditions at application time can affect product suitability and performance.

The correct colour or colour match is the responsibility of the applicator. Colours will change over time and Dulux does not guarantee that the same colour newly mixed will match a colour applied earlier which has been subjected to weathering or other change elements. No product colour is guaranteed against colour change.

Where any liability of Dulux in respect of this Data Sheet cannot by law be excluded, Dulux's liability is limited, as permitted by law and at Dulux's option, to resupply of the relevant products or services or to reimbursing the cost of those products or services.

**WHERE LEAD MAY BE PRESENT:** The asset manager is responsible for verifying the presence of lead and determining whether to remove or encapsulate the lead. If lead is present, the work must be done in strict accordance with AS/ NZS 4361 Parts 1 and 2 and Worksafe Australia or New Zealand guidelines.