

NZDU02258 Dulux Metalshield FD Enamel Gloss on Painted Steel [Exterior]

Scope of Works

DULUX Metalshield® FD Enamel dries very rapidly when compared to other typical enamels. Its rapid dry properties are favoured in application shops where short down times mean savings in time and money.

Substrate and Substrate Preparation

Substrate Notes

This is a generic steel or iron substrate. Please see the respective substrate for: non-ferrous metals, galvanised steel, precoated sheet steel. Other specialty metal substrates may also not be covered by this substrate.

Uncoated ferrous metal is very unstable and will readily react with water and oxygen to form oxides (rust). The presence of salts will speed up rust formation.

Millscale is a shiny, bluish iron oxide produced by heat and pressure during manufacture and is often mistaken for shop primer or clean steel.

Millscale is very difficult to remove by hand and should be abrasive blast cleaned off. The presence of millscale is responsible for a significant proportion of coating failures.

MILD STEEL

Mild steel contains less than 0.25% carbon. New mild steel surfaces should be inspected for millscale, rust, sharp edges, burr marks and welding flux, forming or machine oils, salts, chemical contamination or mortar splashes on them, all of which must be removed.

CAST IRON

Cast iron is a carbon-steel alloy containing substantial amounts of graphite (usually above 2.5%) which has been cast and therefore does not contain welds.

BLACK STEEL

Ferrous metal partially protected by a thin outer layer of black iron oxide (Magnetite). Rust protection offered with black steel is minimal and is often treated with an oil coating during manufacture to inhibit the rust process.

WROUGHT IRON

A historic grade of iron, with a low carbon content (0.1-0.25%) but significant levels of impurities. It has little use today and has been replaced by mild steel.

Substrate Preparation Notes

DOMESTIC STEELWORK

CLEAN

Remove all surface contamination such as oil, grease or dirt by alkaline detergent solution wash, such as Dulux Prep Wash, using stiff bristle brush if necessary, and rinse with fresh potable water. Repeat until the surface is clean. Alternatively, the surface can be cleaned by water blasting.

ASSESS SUITABILITY

Inspect to determine the degree of deterioration of existing coatings. Identification of the existing coating is also very helpful in determining the repaint system. Check coating adhesion using the cross-cut adhesion test, carried out in various locations.

REPAIR OF SURFACE DEFECTS

Remove all coatings that had failed adhesion test, or that are cracking, peeling, flaking or otherwise unsound by sanding, power sanding, scraping, wire brushing or burning off as appropriate. Where coating is removed back to a well-adhered, hard edge, feather the edges of the coating to remove visual ridges. Remove all residual loose matter resulting from the cleaning process by brush, vacuum, or clean, compressed air.

ABRADE SURFACE

Where the existing coating passes adhesion test, abrade surface to thoroughly de-gloss the surface and to provide a suitable surface for re-coating. Ensure all dust is removed prior to continuing.

PRIME

Spot prime all bare metal with an appropriate, corrosion-inhibiting primer as soon as possible, before the surface oxidises or becomes contaminated. Overlap onto the sound adjacent coating by 25 to 50 mm.

RUST AFFECTED STEEL

1. Remove any loose or flaking coating back to a hard edge by scraper or power tool. Feather back all edges to remove ridges. Abrade surface of remaining coating to provide a suitable surface key for adhesion of the new coating system.
2. Using wire brush or power tool cleaning methods as appropriate, clean all bare metal surfaces and rust-affected areas. Remove filings, preferably by vacuum or compressed air. Ensure that the surface is clean, corrosion-free and dry immediately prior to application of primer coat.
3. Spot prime all bare metal with an appropriate, corrosion-inhibiting primer as soon as possible, before the surface oxidises or becomes contaminated.

INDUSTRIAL

CLEAN

Wash and degrease all surfaces to be coated in accordance with AS1627.1 with a free-rinsing, alkaline detergent, such as Dulux Prep Wash. Wash with fresh potable water to remove all detergent, salts and residues are removed. Refer to AS 3894.6 methods A&D.

ASSESS SUITABILITY

Perform adhesion test as described in relevant sections of AS 3894.9. If existing coating fails adhesion test, it must be removed.

REPAIR AND PREPARATION OF SURFACE

Abrade the surface to remove gloss and chalkiness, to achieve a smooth, uniform surface and to provide a good key for the new coating system. Dust off. Complete removal of heavy chalky build-up may require wire brush or power tool cleaning back to sound paint layers before abrading.

PRIME

Spot prime all bare metal with an appropriate, corrosion-inhibiting primer as soon as possible, before the surface oxidises or becomes contaminated. Overlap onto the sound adjacent coating by 25 to 50 mm.

RUST AFFECTED STEEL

1. Remove any loose or flaking coating back to a hard edge by scraper or power tool. Feather back all edges to remove ridges. Abrade surface of remaining coating to provide a suitable surface key for adhesion of the new coating system.
2. Using wire brush or power tool cleaning methods as appropriate, clean all bare metal surfaces and rust-affected areas in accordance with AS/NZ 1627:2 Class 2. Remove filings, preferably by vacuum or compressed air. Ensure that the surface is clean, corrosion-free and dry immediately prior to application of primer coat.
3. Spot prime all bare metal with an appropriate, corrosion-inhibiting primer as soon as possible, before the surface oxidises or becomes contaminated. Overlap onto the sound adjacent coating by 25 to 50 mm.

Coating System Summary

- 1st Coat Dulux PREP WASH
- Spot Primer Dulux Metalshield All Surface Primer
- 2nd Coat Dulux Metalshield FD Enamel Gloss
- 3rd Coat Dulux Metalshield FD Enamel Gloss

Coating System

1st Coat — Dulux PREP WASH

Coat Type 1st Coat	Datasheet NZDU00398 Dulux PREP WASH
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Read the full Datasheet details at [Dulux PREP WASH](#)

Application Methods



Brush

	Min	Max	Recommended
Theoretical Spread Rate (m ² /L)	6	12	
Recoat Time **	n/a	n/a	n/a

Meets ECNZ V.O.C. Requirements?

Not Applicable

Coating Application Details

Apply by broom or brush. Or by garden sprayer.

1. Add one part Dulux Prep Wash concentrate to one part water in a clean plastic bucket and mix well.
2. Test on a small inconspicuous area at recommended dilution to determine effectiveness and strength required.
3. Apply diluted Dulux Prep Wash solution to walls/roof/trim with a broom/brush or garden sprayer. Leave the solution on the surface until mould and mildew stains disappear or soften (approximately 10 minutes), avoiding allowing the solution to dry out. Scrub vigorously.
4. Rinse off the surface with water using a high pressure or garden hose and allow surface to dry. Surface may be slippery while wet (roof). Stubborn stains may require longer time, more vigorous scrubbing, or additional treatment. Severely stained surfaces may need a power washer, or treatment with undiluted Dulux Prep Wash concentrate.

SDS Number 000000022880	SDS Link View SDS Link
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Spot Primer — Dulux Metalshield All Surface Primer

Coat Type
Spot Primer

Datasheet
NZDU00456 Dulux Metalshield All Surface Primer

Read the full Datasheet details at [Dulux Metalshield All Surface Primer](#)

Application Methods



	Min	Max	Recommended
Theoretical Spread Rate (m ² /L)	15	10	15
Wet Film Per Coat (microns)	60	100	60
Dry Film Per Coat (microns)	10	15	10
Recoat Time **	1 hour	Indefinite	

V.O.C. Level
<722 g/L

Meets ECNZ V.O.C. Requirements?
Not Applicable

SDS Number
52281

SDS Link

2nd Coat — Dulux Metalshield FD Enamel Gloss

Coat Type
2nd Coat

Datasheet
NZDU00511 Dulux Metalshield FD Enamel Gloss

Read the full Datasheet details at [Dulux Metalshield FD Enamel Gloss](#)

Application Methods



	Min	Max	Recommended
Theoretical Spread Rate (m ² /L)			8.5
Wet Film Per Coat (microns)			105
Dry Film Per Coat (microns)			40
Recoat Time **	6 Hours	Indefinite	

Meets ECNZ V.O.C. Requirements?
Not Applicable

3rd Coat — Dulux Metalshield FD Enamel Gloss

Coat Type
3rd Coat

Datasheet
NZDU00511 Dulux Metalshield FD Enamel Gloss

Read the full Datasheet details at [Dulux Metalshield FD Enamel Gloss](#)

Application Methods

	Min	Max	Recommended
Theoretical Spread Rate (m ² /L)	<input type="text"/>	<input type="text"/>	8.5
Wet Film Per Coat (microns)	<input type="text"/>	<input type="text"/>	105
Dry Film Per Coat (microns)	<input type="text"/>	<input type="text"/>	40
Recoat Time **	6 Hours	Indefinite	<input type="text"/>

Meets ECNZ V.O.C. Requirements?
Not Applicable

Coating System Notes
* Theoretical Coverage is the area is the area covered by 1 Litre of material at the specification 'Dry Film Thickness' without a loss to a smooth and non porous surface.

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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.

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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.