NZDU02259 Dulux Metalshield FD Enamel Gloss on New Non-Ferrous Metals [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 non-ferrous metal substrate. Please see the respective substrate for: steel, galvanised steel, precoated sheet steel . Other specialty metal substrates may also not be covered by this substrate.

ALUMINIUM & ALLOYS
Aluminium and its alloys rapidly oxidise on exposure, forming a chemically inert, protective layer that protects the metal from further corrosion.

Aluminium and its alloys may be extremely smooth or contaminated with greases, oils and foreign matter leading to poor paint adhesion and reduced lifetime. Careful cleaning and thorough abrasion of the surface must be carried out prior to painting to ensure maximum coating performance.

ANODISED ALUMINIUM
Anodising is an electro-chemical process which physically alters the surface of the metal to produce a very smooth, tough, dense, invisible oxide layer on the surface. The aluminium surface is 'passivated' and sealed and therefore unable to bond with any organic coating, including powder coatings unless proper surface preparation is carried out to ensure adequate adhesion of the applied finish.

COPPER
Copper metal has a dull brown metallic lustre but will oxidise to the familiar chalky green patina often seen on copper domes on heritage buildings. This green patina must be completely removed prior to painting.

BRASS
Brass is an alloy (blend) of copper and zinc. Brass can be polished to a bright, shiny, lustrous metallic dark gold appearance but is prone to tarnishing (surface corrosion), particularly on contact with skin, and therefore should not be handled with bare hands. Brass is very smooth and may be coated with oils leading to poor paint adhesion and reduced lifetime. Careful cleaning and thorough abrasion of the surface must be carried out prior to painting to ensure maximum coating performance.

BRONZE
Bronze is an alloy (blend) of copper and tin and has a shiny, lustrous brown metallic appearance that is prone to tarnishing (surface corrosion) to a dusty green patina with time. Bronze is generally quite smooth and may be contaminated with oils leading to poor paint adhesion and reduced lifetime. Careful cleaning and thorough abrasion of the surface must be carried out prior to painting to ensure maximum coating performance.

Substrate Preparation Notes

DOMESTIC
CLEAN
Remove all surface contamination such as oil, grease or dirt by washing with an alkaline detergent, such as Dulux Prep Wash, and rinse with fresh potable water.

ABRADE
Thoroughly abrade the non ferrous metal surface to establish a mechanical key by scouring the surface with a nylon scouring pad, scotch-brite pad or power tool using a 50/50 mix of methylated spirits and water as a lubricant. Ensure all dust is removed prior to continuing.

DRY
Wipe dry using a clean cloth and allow to dry completely.

PRIME
Apply a suitable primer over the entire area as soon as possible to reduce the risk of corrosion.

INDUSTRIAL
CLEAN
Remove all surface contamination such as oil, grease or dirt by washing with an alkaline detergent, such as Dulux Prep Wash, and rinse with fresh potable water. Refer to AS1627.1 Part 1.4.4 - 1.4.6.

ABRADE
Dry abrasive "brush blast" clean (whip blast) the surface using a non-metallic abrasive such as garnet. The abrasive size and blast pressure shall be such that all oxidation products and other surface contaminants are completely removed and that the surface is profiled to provide a suitable key for adhesion of the coating system.
If the item being painted is not suitable for brush blasting (eg sheet metal or thin extrusions) then use non-metallic abrasive sanding pads to remove any existing oxidation and provide a suitable key for coating adhesion. Note that this preparation method is likely to be less effective than brush blasting and should only be used where brush blasting is not suitable.

Remove all spent abrasive and residual dust by using dry compressed air or, preferably, vacuum cleaning prior to application of the coating. Avoid handling abraded metal with bare hands.

REPAIR SURFACE IMPERFECTIONS
Inspect the surface prior to coating to ensure no contamination is present and no surface defects exist. If either contaminants or defects are present, rectification is required before any coating is applied.

PRIME
Apply first or primer coat as soon as practical after preparation and before the surface oxidises or becomes re-contaminated.

Coating System Summary

- 1st Coat — Dulux Metalshield Etch Primer
- 2nd Coat — Dulux Metalshield FD Enamel Gloss
- 3rd Coat — Dulux Metalshield FD Enamel Gloss

Coating System

1st Coat — Dulux Metalshield Etch Primer

Coat Type	Datasheet
1st Coat	**NZDU00526 Dulux Metalshield Etch Primer**

Read the full Datasheet details at Dulux Metalshield Etch Primer

Application Methods

Air Spray **Airless Spray** **Brush** **Roller**

	Min	Max	Recommended
Theoretical Spread Rate (m²/L)			8
Wet Film Per Coat (microns)	125	190	125
Dry Film Per Coat (microns)	10	15	10
Recoat Time **			10

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

2nd Coat — Dulux Metalshield FD Enamel Gloss

Coat Type	Datasheet
2nd Coat	**NZDU00511 Dulux Metalshield FD Enamel Gloss**

Read the full Datasheet details at Dulux Metalshield FD Enamel Gloss

Application Methods

Air Spray **Airless Spray**

	Min	Max	Recommended
Theoretical Spread Rate (m²/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	Datasheet
3rd Coat	**NZDU00511 Dulux Metalshield FD Enamel Gloss**

Read the full Datasheet details at Dulux Metalshield FD Enamel Gloss

Application Methods

Air Spray **Airless Spray**

	Min	Max	Recommended
Theoretical Spread Rate (m²/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

Coating System Notes
* Theorectical Coverage is the area is the area covered by 1 Litre of material at the specifiaction '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.