NZDU00661 Dulux Quantum FX Gloss on New Galvanised Steel [Exterior]

Scope of Works

DUREMAX® GPE Zinc Phosphate has been locally developed specially for Australasian conditions using the latest epoxy technology. It is a general purpose epoxy zinc phosphate primer used on mild steel. DUREMAX® GPE Zinc Phosphate is a high performance coating for the protection of structures exposed to severe environments such as chemical plants, offshore platforms, refineries, shiploaders, coal wash plants etc. DUREMAX® GPE Zinc Phosphate is suitable for fresh and salt-water immersion when suitably topcoated. It is compatible over inorganic zinc and epoxy primers and can be topcoated with a wide range of coating types. DULUX QUANTUM® FX is a premium quality, gloss, metallic, twopack acrylic polyurethane that offers a range of brilliant modern tinted colours. Designed for locations requiring visual impact, whilst maintaining aesthetics, it achieves amazing results. EXTERIOR GALVANIZED OR ZINC METAL SPRAYED STEEL - LONG TERM SYSTEM - METALLIC FINISH Gloss level: Gloss Coating type: Epoxy zinc phosphate primer/Polyurethane gloss (metallic finish) Preparation: Clean to AS 1627.1 and lightly abrade

Substrate and Substrate Preparation

Substrate Notes

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

GALVANISED STEEL (Zinc Coated Steel, Galvanised Iron)
Galvanised steel has been coated with a layer of zinc, either by dipping in molten zinc/zinc alloy, sprayed with molten zinc metal or electrodeposition of zinc. The zinc layer provides galvanic corrosion protection in much the same way that zinc rich primers do, by corroding in preference to the steel with which it is in contact. New galvanised iron, zinc and zinc-alloy surfaces should be examined for flux residues, light roll-forming oils, and foreign matter, all of which must be removed. Surfaces that show white rust or other corrosion products should be cleaned and treated appropriately. Zinc and zinc-alloy coated surfaces must not be primed with alkyd based paints due to a chemical reaction between the zinc and the alkyd resin.

Galvanised steel can be difficult to paint and protect because of the highly reactive nature of galvanising, particularly in coastal and chemical environments.

In many circumstances superior corrosion protection and superior compatibility with topcoats can be achieved by the use of Dulux zinc-rich, two-pack primer on mild steel instead of hot dipped galvanising. Please consult a Dulux Protective Coatings representative for specific requirements.

ZINC METAL SPRAY
Steel sprayed with molten zinc metal. The zinc layer provides corrosion protection in much the same way as hot dipped galvanised steel. There are fewer limitations on the size of objects that can be coated than with hot dip galvanisation, however, the porosity of the resulting surface will be higher.

Substrate Preparation Notes

DOMESTIC
CLEAN
Degrease surface with an alkaline detergent, such as Dulux Prep Wash, and rinse with fresh potable water until free of residue. Repeat until the surface is clean.

ABRADE
Abrade surface thoroughly using an abrasive nylon pad to remove gloss and to provide a suitable key for the coating system to adhere to. Any white rust should be removed by abrasion. Care must be taken so as not to damage the zinc layer. Wash down residues and allow the surface to dry.

PRIME
Apply a suitable, corrosion-inhibiting primer to any bare metal areas as soon as possible, before the surface oxidises or becomes contaminated.

RUST AFFECTED SUBSTRATES
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. If the rust is serve, remove all paint, zinc coating and rust with abrasive blast, power wire brush or power tool cleaning. 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.

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. Repeat until the surface is clean. A clean surface is indicated when the rinsing water wets out the surface instead of beading on the surface. Refer to relevant sections of AS1627.1 2003 Part 2.

PREPARE SURFACE

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 zinc corrosion products and other surface contaminants are completely removed and that the surface is lightly profiled to provide a suitable key for the coating system to adhere to but with minimal reduction in the galvanised coating thickness (no more than 10 microns). If the item being painted is not suitable for brush blasting (eg zinc coated, sheet steel cladding) then use non-metallic abrasive sanding pads to remove any existing corrosion 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 using dry compressed air or, preferably, vacuum cleaning prior to application of the coating. Avoid handling blasted galvanised steel with bare hands.

REPAIR
If the zinc coating has been accidentally removed, spot repair all such areas using a zinc rich primer compatible with the coating system.

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

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 Duremax GPE Zinc Phosphate
- 2nd Coat — Dulux Quantum FX Gloss
- 3rd Coat — Dulux Quantum Clearcoat Gloss

Coating System

1st Coat — Dulux Duremax GPE Zinc Phosphate

Coat Type	Datasheet
1st Coat	**NZDU00473 Dulux Duremax GPE Zinc Phosphate**

Read the full Datasheet details at Dulux Duremax GPE Zinc Phosphate

Application Methods

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

	Min	Max	Recommended
Theoretical Spread Rate (m²/L)			**4.7**
Wet Film Per Coat (microns)			**210**
Dry Film Per Coat (microns)			**150**
Recoat Time **	**8 Hours**	**4 Weeks***	

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

2nd Coat — Dulux Quantum FX Gloss

Coat Type	Datasheet
2nd Coat	**NZDU00524 Dulux Quantum FX Gloss**

Read the full Datasheet details at Dulux Quantum FX Gloss

Application Methods

Airless Spray

	Min	Max	Recommended
Theoretical Spread Rate (m²/L)			8.2
Wet Film Per Coat (microns)			120
Dry Film Per Coat (microns)			55
Recoat Time **	7 Hours	Indefinite	

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

3rd Coat — Dulux Quantum Clearcoat Gloss

Coat Type	Datasheet
3rd Coat	**NZDU00525 Dulux Quantum Clearcoat Gloss**

Read the full Datasheet details at Dulux Quantum Clearcoat Gloss

Application Methods

Airless Spray

	Min	Max	Recommended
Theoretical Spread Rate (m²/L)			9.5
Wet Film Per Coat (microns)			100
Dry Film Per Coat (microns)			45
Recoat Time **	7 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.

Disclaimer

This Specification is copyright to DuluxGroup (Australia) Pty Ltd and/or DuluxGroup (New Zealand) Pty Ltd (collectively, 'Dulux'). It may not be varied or altered without the prior written consent of Dulux, and if it is, Dulux has no responsibility or liability for those variations.

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

Any information provided in this Duspec+ 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 Duspec+ document, 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 Duspec+ document, and as recommended on the applicable Dulux Product Data Sheet and Safety Data Sheets for the relevant products (available from www.duspecplus.co.nz). Climatic conditions at application time can affect Duspec+ documentation suitability and product 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 Specification 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.