

# NZDU02056 Dulux Weathershield Semi Gloss on Painted Steel [Exterior]

# Scope of Works

DULUX Weathershield X10 Semi Gloss is a 100% acrylic self priming paint for exterior use. Its unique MaxiFlex Stretch Technology gives a tough, flexible finish for long life protection from the extremes of weather.

# 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 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 It has little use today and has been replaced by mild steel.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 recoating. 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.

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.
 Spot prime all bare metal with an appropriate, corrosion-inhibiting primer as soon as possible, before the surface oxidises or becomes contaminated.

INDUSTRIAL CLEAN

# Dulux DuSpec+





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 Precision All Metal Primer
- 2nd Coat Dulux Weathershield Semi Gloss
- 3rd Coat Dulux Weathershield Semi Gloss
- . . .

Coating System					
1st Coat — Dulux PREP WASH					
Coat Type <b>1st Coat</b>		Datasheet NZDU00398 Dulux PREP WASH			
Read the full Datasheet details at <u>Dulux PREP WASH</u>					
Application Methods					
<b>T</b> Brush					
Broom Garden sprayer					
	Min		Max		Recommended
Theoretical Spread Rate (m²/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 Link <u>View SDS Link</u>		



**Specification** 



Spot Primer — Dulux Precisio	on All Metal	Primer					
Coat Type <b>Spot Primer</b>		Datasheet NZDU00280 Dulux Precision All Metal Primer					
Read the full Datasheet details a	t <u>Dulux Precis</u>	ion All Metal Pri	mer				
Application Methods							
🤺 Air Spray 🛉 Airles	ss Spray	Brush	<sup>b</sup> Roller				
Min		Max	Max Recommended				
Theoretical Spread Rate (m²/L)	14.8		14.8	14.8			
Wet Film Per Coat (microns)	68		68	68			
Dry Film Per Coat (microns)	25		25	25			
Recoat Time **	2 hours		Indefinite	2 hours			
V.O.C. Level <60g/L			Meets ECNZ V.O.C. Req Not Applicable	Meets ECNZ V.O.C. Requirements? Not Applicable			
Note: Thinning can reduce the rus Do Not Tint SDS Number DLXNZ7EN001852	st innibiting pe		SDS Link <u>View SDS Link</u>				
2nd Coat — Dulux Weathersl	hield Semi G	loss					
Coat Type <b>2nd Coat</b>		Datasheet NZDU00242 D	ulux Weathershield Semi Gloss				
Read the full Datasheet details a	t <u>Dulux Weath</u>	nershield Semi G	loss				
Application Methods							
🤺 Air Spray 🛉 Airles	s Spray	Brush	Roller				
	Min		Max	Recommended			
Theoretical Spread Rate (m²/L)	16		16	16			
Wet Film Per Coat (microns)	63		63	63			
Dry Film Per Coat (microns)	25		25	25			
Recoat Time **	2 Hours		Indefinite				



# **Specification**



Total Volatile Organic Content (TVOC) values are calculated in accordance to the stated methodology within Green Star Technical Manuals. The TVOC content is theoretically calculated as the sum total of the known VOC values of the product's raw material components. These materials include the base paint plus additional low VOC tinter required for non-factory packaged colours.

# Coating Application Details

Brush, roller, conventional and airless spray. Stir contents thoroughly before and during use with a broad flat stirrer, using an upward lifting action.

#### Brush/Roller

Soak brush or roller in water before starting and use while still slightly damp. Thinning is usually not required.

#### Airless or Conventional Spray

Suitable for application by all standard spray equipment. Apply wet even coats. If necessary thin with up to 100 ml/litre water to aid atomisation. Under hot or very windy conditions, up to 100 ml/litre of DULUX Hot Weather Thinner may be added to ease application. On previously painted surfaces, apply 2 coats of Weathershield. Some colours may require more than the recommended number of coats to achieve full opacity. For Weathershield Chromamax Pigment Bases (True Red, Bold Yellow, Orange, Blue and Extra Bright bases), when painting over contrasting colour, apply 1 coat of Dulux 1Step prep-coat.

# Within 1km of sea for galvanised iron, Zincalume

Apply one coat of Dulux All Metal Primer followed by 2 topcoats of Weathershield. Preparation/coating system can vary depending on the quality and conditions of pre-primed timber/fibre cement, Colorbond® & Colorsteel® and tilt-up & precast concrete surfaces. For help and advice, please call Dulux Help & Advice on 0800 800 424 for specific guidance. Check the weather forecast. Do not paint on excessively cold or humid days. Exposure to rain or overnight dew whilst drying may result in the coating being damaged or removed. If painting during the hottest time of the day, cool the surface by hosing before painting and paint on the shady side of the house.

#### Steel/wrought iron

Apply 2 coat of Dulux All Metal Primer followed by 2 topcoats of Weathershield.

#### Bare surfaces including brick, masonry, fibre cement, Zincalume

Apply 3 coats of Weathershield.

#### Galvanised iron

Apply 3 coats of Weathershield. For Weathershield Chromamax Pigment Bases (True Red, Bold Yellow, Orange, Blue and Extra Bright bases), apply 1 coat of Dulux All Metal Primer followed by 2 topcoats of Weathershield.

#### For Zincalume/galvanised iron roofs

Apply 3 coats of Weathershield. For Weathershield Chromamax Pigment Bases (True Red, Bold Yellow, Orange, Blue and Extra Bright bases), apply 1 coat of Dulux All Metal Primer followed by 2 topcoats of Weathershield.

### Bare unpainted timber

Apply 3 coats of Weathershield. For Weathershield Chromamax Pigment Bases (True Red, Bold Yellow, Orange, Blue and Extra Bright bases), for improved resistance to cracking on hardwoods (eg Mt Ash, Oak), apply a coat of Dulux 1Step Prepcoat prior to the application of two topcoats of Weathershield. Professional Painters refer to Duspec Specification Sheets to qualify for guarantee.

SDS Number DLXNZLEN003378		SDS Link <mark>View SDS Link</mark>			
3rd Coat — Dulux Weathershield Semi	Gloss				
Coat Type     Datasheet       3rd Coat     NZDU00242 Dulux Weathershield			oss		
Read the full Datasheet details at Dulux Weathershield Semi Gloss					
Application Methods					
Air Spray 🛉 Airless Spray 📮 Brush 🚏 Roller					
Min		Max	Recommended		
Theoretical Spread Rate (m²/L) 16		16	16		
Wet Film Per Coat (microns) 63		63	63		



# **Specification**



Dry Film Per Coat (microns)	25		25		25
Recoat Time **	2 Hours		Indefinite		
V.O.C. Level < 60 g/L untinted		- - - -	Meets ECNZ V.O.C. Requirement Yes Total Volatile Organic Content (TV accordance to the stated method Manuals. The TVOC content is the of the known VOC values of the p These materials include the base required for non-factory package	'OC) olog eoret produ paint	y within Green Star Technical cically calculated as the sum total ict's raw material components. plus additional low VOC tinter

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#### Bare unpainted timber

Apply 3 coats of Weathershield. For Weathershield Chromamax Pigment Bases (True Red, Bold Yellow, Orange, Blue and Extra Bright bases), for improved resistance to cracking on hardwoods (eg Mt Ash, Oak), apply a coat of Dulux 1Step Prepcoat prior to the application of two topcoats of Weathershield. Professional Painters refer to Duspec Specification Sheets to qualify for guarantee.

SDS Number	SDS Link
DLXNZLEN003378	View SDS Link

#### Coating System Notes

\* Practical Spreading Rate will vary from the quoted Theoretical Spreading Rate due to factors such as method and condition of application and surface roughness. \*\* Recoat times are quotes for 25°c and 50% relative humidity, these may vary under different conditions.







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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 <a href="https://www.duspecplus.co.nz">www.duspecplus.co.nz</a>). 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.