



DURATION® PRODUCT GUIDE

Dulux®

PROTECTIVE
COATINGS



DULUX® PROTECTIVE COATINGS

Dulux® has been manufacturing and supplying coatings for over 85 years, providing invaluable expertise within the Australian paint industry. DuluxGroup® is a leading manufacturer and marketer of products that protect, maintain and enhance the spaces and places in which we live and work.

Dulux® Protective Coatings manufactures and supplies high performance protective coatings for protection of metal against corrosion, UV exposure, chemical attack, abrasion and impact damage in a diverse range and very often harsh environments. Dulux® Protective Coatings offers a water based range for a low VOC alternative.



DURATION®

Duration® is a complete system (primer, intermediate and topcoat) of water based coatings designed to protect steel that is subject to sheltered or mild (C1-C3) corrosive environments including residential and commercial construction, hospitals, warehouses, schools, shopping centres and factories. The products are easy to apply via brushing, rolling or spraying. The low odour and low VOC content of Duration® products compared to solvent based coatings make this range the ideal choice for on-site application. The key features of the Duration® range include;

- » Rust and Corrosion Protection*
- » All products have a VOC content of less than 100g/L
- » Fluorinated polymer technology (Duration® T80) for long term UV resistance and gloss retention
- » Easy to apply
- » Extensive colour range



*For C1-C3 (Very low to Medium) corrosive environments as defined by AS/NZS 2312.12014, "Guide to the protection of steel against atmospheric corrosion by the use of protective coatings"

DURATION® RANGE

DURATION® P23

Duration® P23 is a premium, two-component epoxy zinc phosphate primer that is designed to be used on mild steel and galvanized steel that is subject to sheltered or mild (C1-C3) corrosive environments.

- » Contains corrosion inhibiting pigment
- » Low odour and low VOC
- » Very good adhesion
- » Suitable primer for epoxy, polyurethanes and fluorinated polymers



DURATION® X21

Duration® X21 is a premium, two-component general purpose epoxy coating that has been designed to be used on primed mild steel, galvanized steel and aluminium. Duration® X21 is also suitable for use on prepared concrete surfaces, including concrete floors.

- » Versatile general purpose epoxy
- » Suitable for use on a wide range of primed metal substrates
- » Use direct onto masonry surfaces
- » Ease of application – spray, brush and roller
- » Low VOC and low odour compared to equivalent solvent base systems
- » Fast recoat time, 4 hours at 25°C



Dulux®

**PROTECTIVE
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DURATION® RANGE

DURATION® T74



Duratone® T74 is a premium, two-component polyurethane coating that demonstrates excellent gloss and colour retention and is a low VOC and low odour alternative to solvent based polyurethane topcoats.

- » Excellent UV resistance and gloss retention
- » Short recoat time, 3 hours at 25°C
- » Low VOC and low odour compared to equivalent solvent based systems
- » Tintable to over 5000 colours using the Dulux® Decorama® tint system
- » Smooth gloss or satin finish

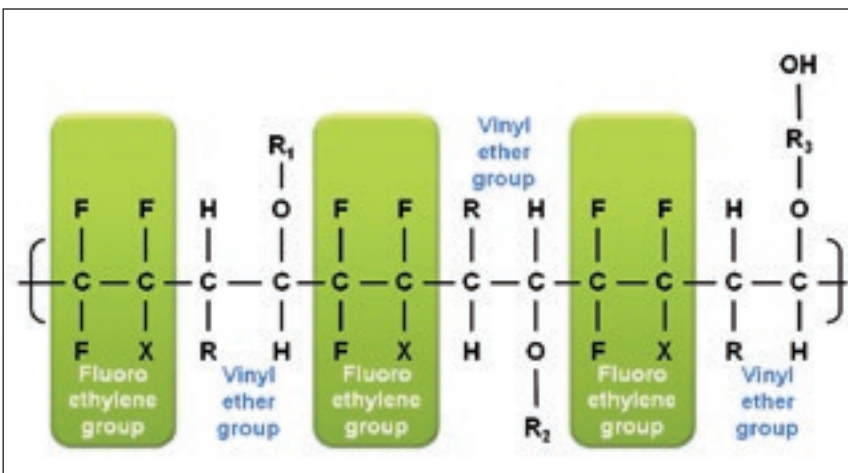


DURATION® T80

Duratone® T80 is a premium, two-component fluorinated polymer finish that demonstrates excellent gloss and colour retention and is designed for applications where extended service periods are required. This is delivered via a system with a very low VOC content of only 23 g/L.

- » Excellent UV resistance and gloss retention
- » Very short recoat time when applying wet on wet
- » Very low VOC and low odour, 23 g/L
- » Tintable to over 5000 colours using the Dulux® Decorama® tint system
- » Gloss and satin finish available
- » Very good anti-graffiti properties

Chemistry underpins the UV resistance and gloss retention performance of Duratone® T80



The benefits of using a Fluorinated polymer

Duratone® T80 utilises a fluoroethylene vinyl ether (FEVE) resin. Each fluoroethylene group consists of 3 carbon-fluorine (C-F) bonds. Due to the relative electronegativity of carbon and fluorine atoms this bond is very polarised, very short and very strong. Consequently a large amount of energy is required to break these bonds, making these bonds highly resistant to the UV radiation found in sunlight.



DURATION® PRODUCT SELECTOR

ENVIRONMENT	PREPARATION GUIDE	SYSTEM	DFT (µm)	
INTERIOR	STEEL NEW	Abrasive blast AS1627.4 Class 2.5	1st Coat Duration® P23 2nd Coat Duration® X21 3rd Coat Duration® X21	75 µm 50 µm 50 µm
	STEEL MAINTENANCE	Check adhesion of coating. If the coatings lifts, remove it. If coating is sound remove contaminants with Gamlen CA No. 1 and highpressure water wash. Abrade existing coating to ensure maximum intercoat adhesion.	1st Coat Duration® X21 2nd Coat Duration® X21	50 µm 50 µm
	GALVANISED STEEL	Degrease and whip blast	1st Coat Duration® X21 2nd Coat Duration® X21	50 µm 50 µm
	CONCRETE	Remove curing agents and other surface contaminants. Diamond grind or track blast	1st Coat Duration® X21 2nd Coat Duration® X21	60 µm 60 µm
	ALUMINIUM	Clean, degrease and abrade surface	1st Coat Duration® P23 2nd Coat Duration® X21 3rd Coat Duration® T74	75 µm 50 µm 50 µm

Note: This document is a guide only, please refer to the relevant Dulux® Product Data Sheets and DuSpec® specifications for more detailed information before any work is carried out. For more technical advice, please contact the Dulux® Protective Coatings Consultant in your state.

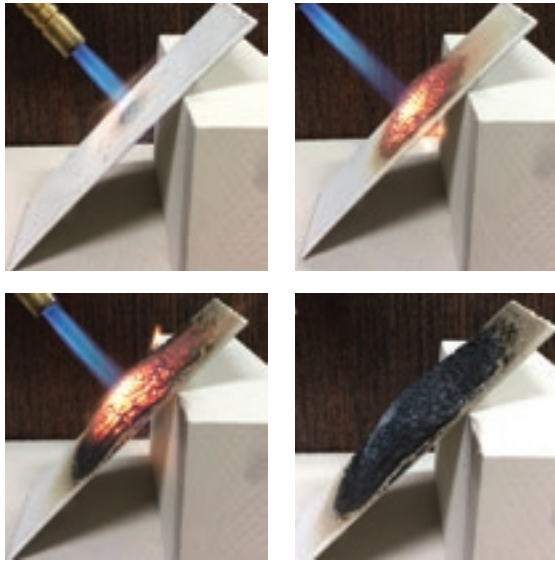
Note: If application is by brush or roller, additional coats will be necessary to achieve the minimum DFT and full opacity.



WATER BASED FIRE PROTECTION SYSTEMS

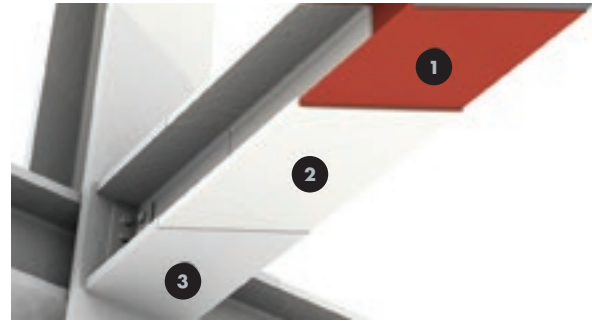
How does Intumescent Coatings work?

In a fire, a chemical reaction takes place causing the Promat® Cafco® SPRAYFILM WB3 to expand. This forms an insulating layer that slows the rate the coated steel is heated and prolongs structural failure of this steel.



Dulux® and Promat® Partnership

Together Dulux® and Promat® supply high quality coating systems that deliver corrosion protection, passive fire protection and an attractive decorative finish to structural steel.



1 High quality, anticorrosive Dulux® metal primer

2 Water based intumescent coating, Cafco® SPRAYFILM WB3 by Promat®

3 High performance Dulux® topcoat

Introducing a low odour & low VOC# water based corrosion and fire protection systems

ENVIRONMENT		PREPARATION GUIDE	SYSTEM		DFT (µm)	CORROSION PROTECTION	FIRE RESISTANCE CLASS
INTERIOR	STEEL NEW	Abrasive blast clean AS1627.4, Class 2.5	1st Coat	Dulux® Duration® P23	75 µm	Very Good	120 minutes§
			2nd Coat	Cafco® SPRAYFILM WB3	*		
			3rd Coat	Dulux® Duration® X21	50 µm		
			4th Coat	Dulux® Duration® X21	50 µm		
INTERIOR	GALVANISED†	Abrasive blast clean AS1627.4, Class 2.5	1st Coat	Dulux® Duration® P23	75 µm	Very Good	120 minutes§
			2nd Coat	Cafco® SPRAYFILM WB3	*		
			3rd Coat	Dulux® Duration® T74	50 µm		
			4th Coat	Dulux® Duration® T74	50 µm		
INTERIOR	STEEL NEW	Abrasive blast clean AS1627.4, Class 2.5	1st Coat	Dulux® Duration® P23	75 µm	Excellent	120 minutes§
			2nd Coat	Cafco® SPRAYFILM WB3	*		
			3rd Coat	Dulux® Duration® X21	50 µm		
			4th Coat	Dulux® Duration® X21	50 µm		
INTERIOR	GALVANISED†	Abrasive blast clean AS1627.4, Class 2.5	1st Coat	Dulux® Duration® P23	75 µm	Excellent	120 minutes§
			2nd Coat	Cafco® SPRAYFILM WB3	*		
			3rd Coat	Dulux® Duration® T74	50 µm		
			4th Coat	Dulux® Duration® T74	50 µm		

§Tested according to AS 1530:PART 4 -2005, Methods for fire tests on building materials, components and structures - Fire resistance test of elements of construction

*The thickness of the intumescent coating Cafco® SPRAYFILM WB3 for a given period of fire resistance in a cellululosic type fire relates to the Hp/A ratio of a steel section. The Hp/A is the ratio of the heated perimeter of a steel section exposed to fire to the cross-sectional area of the same steel. Please refer to Cafco® SPRAYFILM WB3 datasheet for film build recommendations and contact your Dulux Protective Coatings representative.

†Coatings over galvanised steel presents some challenges. If coating over galvanised steel please consult a Dulux Protective Coatings representative.

Compared to typical solvent based protective and intumescent coatings.

SURFACE PREPERATION



Mild Steel

Round off all rough welds, sharp edges and remove weld spatter. Remove grease, oil and other contaminants in accordance with AS1627.1 using Gamlen CA No.1. Rust, millscale, oxide deposits and old paint films on metal surfaces should be removed by abrasive blast cleaning to a minimum of AS1627.4 Class 2.5.

Aluminium and galvanized steel

Remove grease, oil and other contaminants in accordance with AS1627.1 using Gamlen CA No.1. Abrade surface by sanding or light whip blasting.



Concrete

Concrete must be at least 28 days old and have a moisture content of less than 10% before coating. Remove all laitance, curing compounds, oil, grease and other surface contaminants using Gamlen CA No.1. Diamond grind, track or light shot-blast concrete floors to remove laitance and provide suitable profile. Remove all dust by vacuum cleaning. Fill any large cracks or voids using Luxepoxy® Filler.

APPLICATION



Mixing

Duration® products must be mixed thoroughly before use. Mix part A and part B individually using a power mixer until the contents of each part is uniform. Only then combine the contents of both packs together and mix thoroughly using a power mixer. Let stand for 10 minutes. It is recommended to box all containers before use to ensure colour consistency. Stir thoroughly immediately before application.



Pot Life

It is important to adhere to the pot life time quoted on the specific Duration® datasheet. **Do not use any product past its pot life.** Unlike solvent based systems water borne Duration® will not go hard at the end of their pot life and may still appear fit for use but will develop substantially reduced film properties such as lower gloss and film brittleness.



Roller

Apply even coats using a good quality short nap roller (9-12 mm) to the prepared surface. Use a high quality roller. Remove any loose fibres from the roller by using sticky tape (roll tape round your hand, sticky side up and use this to pat down the roller). Any loose adhering fibres will get caught on the tape. Then wash roller in the thinner appropriate for the coating. It is recommended that typical "X" and "Y" roller patterns are used, working in small areas of up to 10m² at a time, keeping a wet-edge moving forward. To minimise any unevenness due to overlapping it is recommended that at the end of each section, lightly roll the area in a consistent direction.



Spray Application

Please refer to the product datasheet for guidance on the correct equipment and settings. It is important when using water borne coatings such as Duration® to apply a tack or mist coat on first before putting the flow coats on. This will help the paint to hang up and reduce the chance of generating bubbles in the film.



Brushing

Only used for small areas and to cut in around the edges of a substrate. Prior to starting, moisten the brush with water, ensuring that excess liquid is removed before painting. To minimise brush marks it is recommended that you work quickly to spread the paint along a given section with light, even strokes.

Dulux® Protective Coatings Australia

Dulux Australia
1956 Dandenong Road
Clayton VIC 3168

Dulux Customer Service
Phone 13 23 77

Dulux New Zealand
150 Hutt Park Road
Lower Hutt New Zealand

Dulux NZ Customer Service
Phone 0800 800 424

For more detailed product and safety
information or for your nearest store
location please visit our website.

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