DURATION® X21

Premium Water Borne Epoxy — PC 855

FEATURES

- VERSATILE GENERAL PURPOSE EPOXY
- SUITABLE FOR USE OVER A WIDE RANGE OF PRIMED METAL SUBSTRATES
- CAN BE USED DIRECTLY ONTO MASONRY SURFACES
- EASE OF APPLICATION – SPRAY, BRUSH, ROLLER
- LOW VOC & LOW ODOUR COMPARED TO EQUIVALENT SOLVENT BORNE SYSTEMS
- FAST RECOAT TIME – 4 HOURS AT 25°C

USES

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.

DURATION® X21 is designed to be used as part of complete DURATION® water borne protective coatings system for steel that is subject to sheltered or mild (C1-C3) corrosive environments including residential and commercial construction, hospitals, warehouses, schools, shopping centres and factories. DURATION® X21 can also be used directly over Dulux® solvent borne epoxy primers, universal primers and to aged, tightly adhering coatings subject to necessary solvent resistance tests and appropriate surface preparation.

SPECIFICATIONS AS/NZS 3750.5

RESISTANCE GUIDE

WEATHERABILITY	Will yellow with time and chalk on exterior exposure. Neither yellowing nor chalking detracts from the protective properties of the coating. Use a weatherable topcoat if required for appearance.	**SOLVENTS**	Good resistance to splash and spillage of aromatic and aliphatic hydrocarbon solvents and alcohols.
HEAT RESISTANCE	Up to 120°C dry heat.	**WATER**	Excellent resistance to fresh and salt water but not suitable for immersion.
SALTS	Excellent resistance to neutral and alkali salts.	**ALKALIS**	Good resistance to splash and spillage of most common alkalis
ACIDS	Suitable for splash and spillage exposure to dilute acids	**ABRASION**	Good when fully cured

TYPICAL PROPERTIES AND APPLICATION DATA

CLASSIFICATION	Two pack epoxy
FINISH	Semi Gloss
COLOUR	White and an extensive range of colours using the Dulux Authentic Colour® Low VOC Tint System.
COMPONENTS	Two
VOLUME SOLIDS	37%
VOC LEVEL	35 g/L
FLASH POINT	N/A
POT LIFE	1 hour (4 litre kit, 25°C)
MIXING RATIO V/V	Part A : 1 Part B : 1
THINNER – BRUSH	Potable water
THINNER – SPRAY	Potable water
PRODUCT CODE	H10-00026 White H10-16101 Ultra Deep Tone Base H10-87663 Extra Bright Base 976-H0185 Standard Hardener

APPLICATION CONDITIONS

	Min	Max
Air Temp.	10°C	40°C
Substrate Temp.	10°C	40°C
Relative Humidity		85%
Concrete Moisture		<6%

COATING THICKNESS (MICRONS)

	Min	Max	Recommended
Wet film per coat (µm)	110	160	135
Dry film per coat (µm)	40	60	50

SUITABLE SUBSTRATES	Suitably primed mild steel, aluminium, zinc coated steel and prepared concrete
PRIMERS	Most Dulux® single pack and two pack primers
TOPCOATS	Dulux® Duration® topcoats
APPLICATION METHODS	Airless spray, roller and brush

DRYING CHARACTERISTICS AT 50 µm DRY FILM THICKNESS*

					OVERCOAT	
Temperature	**Humidity**	**Touch**	**Handle**	**Full Cure**	**Min**	**Max[1]**
25° C	50%	4 Hours	18 Hours	7 Days	4 Hours	7 days

*These figures are a guide only, as ventilation, film thickness, humidity, thinning and other factors will influence the rate of drying.

[1]**If the maximum overcoat interval is exceeded then the surface MUST be abraded to ensure maximum intercoat adhesion.**

SPREADING RATE
with Standard Hardener
assuming no losses

7.4 square metres per litre equals 50 µm dry film thickness
NOTE: Practical spreading rates will vary depending on such factors as application method, ambient conditions, surface porosity and roughness.

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TYPICAL SYSTEMS

This is a guide only and not to be used as a specification. Your specific project needs must be discussed with a Dulux Protective Coatings Consultant.

SURFACE	ENVIRONMENT	PREPARATION GUIDE	SYSTEM		DFT (µm)
STEEL - NEW	Low–medium corrosivity (AS2312.1 Cat C1-C3)	Abrasive blast AS1627.4 Class 2.5	1st Coat 2nd Coat 3rd Coat	Duration® P23 Duration® X21 Duration® T74	75 µm 50 µm 50 µm
STEEL - NEW	Low–medium corrosivity (AS2312.1 Cat C1-C3)	Abrasive blast AS1627.4 Class 2.5	1st Coat 2nd Coat 3rd Coat	Duration® P23 Duration® X21 Duration® T80	75 µm 50 µm 50 µm
STEEL - NEW	Interior	Abrasive blast AS1627.4 Class 2.5	1st Coat 2nd Coat 3rd Coat	Duration® P23 Duration® X21 Duration® X21	75 µm 50 µm 50 µm
GALVANISED STEEL	Exterior	Degrease and whip blast	1st Coat 2nd Coat 3rd Coat	Duration® P23 Duration® X21 Duration® T74	75 µm 50 µm 50 µm
ALUMINIUM	Exterior/Interior	Clean, degrease and abrade surface	1st Coat 2nd Coat 3rd Coat	Duration® P23 Duration® X21 Duration® T74	75 µm 50 µm 50 µm
CONCRETE	Interior	Remove curing agents and other surface contaminants. Diamond grind or track blast	1st Coat 2nd Coat	Duration® X21 Duration® X21	60 µm 60 µm

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

SURFACE PREPARATION

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 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. Apply suitable primer.

Aluminium and galvanized steel: Remove grease, oil and other contaminants in accordance with AS1627.1 using **Gamlen CA 1**. Abrade surface by sanding or light whip blasting. Apply suitable primer.

Concrete: Concrete must be at least 28 days old before coating. Remove all laitance, curing compounds, oil, grease and other surface contaminants using **Gamlen CA 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

Mix part A and part B thoroughly using a power mixer until the contents of each part is uniform. Ensure bases have been tinted to the correct colour before use. DULUX® ASSUMES NO RESPONSIBILITY FOR THE APPLICATION OF INCORRECT COLOUR. Mix the contents of both packs together thoroughly using a power mixer. Thin with water under power mixing before allowing to stand for 10 minutes. Box all containers before use to ensure colour consistency. Remix thoroughly before application.

BRUSH/ROLLER

Application can be improved by thinning with up to 100 ml/litre with potable water. When brushing and rolling additional coats may be required to attain the specified thickness.

AIRLESS SPRAY

Standard airless spray equipment such as a Graco Xtreme 45:1 with a fluid tip of 17-21 thou (0.43- 0.53mm) and an air supply capable of delivering 550-690 kPa (80 -100 psi) at the pump. Thinning is not normally required but up to 50ml/litre of potable water may be added to ease application.

PRECAUTIONS

This is an industrial product designed for use by experienced Coating applicators. Where conditions may require variation from the recommendations on this Product Data Sheet contact your nearest Dulux® Consultant for advice prior to painting. Do not apply in conditions outside the parameters stated in this document without the written consent of Dulux® Australia. **Do not use any product past its pot life**. Product past its pot life may still appear fit for use but will develop substantially reduced gloss and may develop brittleness. Freshly mixed material must not be added to material that has been mixed for some time. The rate of cure is dependent upon temperature. Do not apply at temperatures below 10°C, or where the surface temperature is below 10°C. Do not apply at relative humidity above 85% or when the surface is less than 3°C above the dewpoint. Product should be protected against ponding water for 24 hours after application. After this period ponding water may cause temporary lightening of the colour, which will recover after the surface is dried. When applying this product to broad surfaces, use only one application method to avoid colour variation or streaking.

CLEAN UP

Clean all equipment with clean warm water immediately after use followed by DULUX® EPOXY THINNER (920-08925).

OVERCOATING

Degrease with Gamlen CA 1 according to the data sheet. Test adhesion of existing coating by standard cross hatch adhesion test. If the coating fails, remove it. High-pressure water wash at 8.3 to 10.3 MPa (1,200-1,500 p.s.i.) to remove chalk and dust. Abrade surface to provide a good key for the new coating. Epoxies must be abraded if recoated outside the recoat window.

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SAFETY PRECAUTIONS	**Read Data Sheet, SAFETY DATA SHEET and any precautions on container labels. SAFETY DATA SHEET is available from Customer Service (13 23 77) or www.duluxprotectivecoatings.com.au**
STORAGE	Both components are NOT classified as dangerous goods for transport or storage. Store in well ventilated bunded area under cover and away from sources of heat. Keep containers closed at all times.
HANDLING	As with any chemical, ingestion, inhalation and prolonged or repeated skin contact should be avoided by good occupational work practice. Eye protection approved to AS1337 should be worn where there is a risk of splashes entering the eyes. Always wash hands before smoking, eating, drinking or using the toilet.
USING	Use with good ventilation and avoid inhalation of spray mists and fumes. If risk of inhalation of spray mists exists, wear combined organic vapour/particulate respirator. When spraying, users must comply with their respective State Spray Painting Regulations.
FLAMMABILITY	This product is not flammable. On burning will emit toxic fumes.
WELDING	Avoid inhalation of fumes if welding surfaces coated with this paint. Grind off coating before welding.

COMPANY INFORMATION

Dulux Protective Coatings a division of

DuluxGroup (Australia) Pty Ltd
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DuluxGroup (New Zealand) Pty Ltd
150 Hutt Park Road, Lower Hutt, NZ
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PACKAGING, TRANSPORT AND STORAGE

PACKAGING	Available in 4 litre and 20 litre packs
TRANSPORTATION WEIGHT	1.60 kg/litre (Average of components)
DANGEROUS GOODS	Part A: Non Dangerous Goods Part B: Non Dangerous Goods

Dulux, Dulux Authentic Colour, Duration and Luxepoxy are registered trade marks of DuluxGroup (Australia) Pty Ltd.

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