

# LUXAFLOOR® ECO<sub>2</sub>®

## Water Borne Epoxy Floor Coating

PC 296

- FEATURES**
- TOUGH FILM
  - WATER BORNE LOW VOC – LESS THAN 10g/L – AND LOW ODOUR
  - EXCELLENT ADHESION TO CONCRETE
  - GOOD CHEMICAL RESISTANCE
  - AVAILABLE IN A RANGE OF FACTORY MADE AND TINTED COLOURS AND CLEAR

**USES** LUXAFLOOR® ECO<sub>2</sub>® is a low build, water borne, two pack epoxy floor coating that provides a hardwearing surface. It is ideal for use in areas subject to foot traffic. LUXAFLOOR® ECO<sub>2</sub>® can be applied as a slip resistant finish by the addition of LUXAFLOOR® STIR-IN AGGREGATE FINE.

LUXAFLOOR® ECO<sub>2</sub>® is ideal for use in internal floor areas where the odour of conventional epoxy floor coatings prevents their use. LUXAFLOOR® Clear Coat is suitable for use direct to concrete or as a protective coat over a LUXAFLOOR® ECO<sub>2</sub>® colour finish.

**SPECIFICATIONS** AS 4586:2013 Refer to Luxafloor Aggregates Technical Data Sheet for the full list of systems and ratings.

### RESISTANCE GUIDE

<b>WEATHERABILITY</b>	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.	<b>SOLVENTS</b>	Good resistance to splash and spillage of aromatic and aliphatic hydrocarbon solvents and alcohols
<b>HEAT RESISTANCE</b>	Up to 120°C dry heat	<b>WATER</b>	Excellent resistance to fresh and salt water but not suitable for immersion.
<b>SALTS</b>	Excellent resistance to neutral and alkaline salts	<b>ALKALIS</b>	Good resistance to splash and spillage of most common alkalis.
<b>ACIDS</b>	Good resistance to splash and spillage of dilute acids	<b>ABRASION</b>	Excellent when fully cured. CS-17 Wheels 120mgs/1000 cycles (Taber Abraser 1000gm load/wheel)
		<b>ADHESION</b>	80 kg/cm <sup>2</sup> (1100 p.s.i.) (Dolly Pull Off, AS1580.408.5)

### TYPICAL PROPERTIES AND APPLICATION DATA

CLASSIFICATION	Water Borne Epoxy Coating		APPLICATION CONDITIONS			
FINISH	Semi Gloss			Min	Max	
COLOUR	Clearcoat and Light Grey, and a range of colours tinted from Pastel Base using the Dulux Authentic Colour® Low VOC Tint System.		Air Temp.	10°C	35°C	
			Substrate Temp.	10°C	35°C	
			Relative Humidity	85%		
COMPONENTS	Two		Concrete Moisture	<6%		
VOLUME SOLIDS	42%					
VOC LEVEL	<10 g/L (Untinted Pastel Base)		COATING THICKNESS (MICRONS) <sup>2</sup>			
FLASH POINT	Non Flammable			Min	Max	Recommended
POT LIFE <sup>1</sup>	2 hour (10 litre kit, 25°C)		Wet film per coat (µm)	95	190	155
MIXING RATIO V/V	Part A : 1	Part B : 2	Dry film per coat (µm)	40	80	65
THINNER	Potable water					
PRODUCT CODE	714-89840	Pastel Base	SUITABLE SUBSTRATES	Diamond ground or track blasted concrete		
	714-38678	Light Grey	PRIMERS	Not applicable		
	714-89899	Clearcoat				
	976-89841	Part B	TOPCOATS	Not Applicable		
			APPLICATION METHODS	Brush, roller, conventional and airless spray		

### DRYING CHARACTERISTICS AT 65 µm DRY FILM THICKNESS\*

Floor Temperature	Humidity	Touch	Light Traffic	Full Cure	OVERCOAT	
					Min	Max <sup>3</sup>
10° C	50%	2.5 Hours	48 Hours	7 Days	7 Hours	48 Hours
25° C	50%	1 Hour	24 Hours	7 Days	4 Hours	48 Hours

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

<sup>1</sup> Do not use any product past its pot life, even if it still appears fit for use; it will develop substantially reduced gloss and may show excessive brittleness.

<sup>2</sup> Higher film builds can be achieved by spray application but this will extend drying times.

<sup>3</sup> If the maximum overcoat interval is exceeded then the surface MUST be abraded to ensure maximum intercoat adhesion.

### SPREADING RATE ASSUMING NO LOSSES

**6.5 square metres per litre equals 65 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)
CONCRETE	Interior	Remove curing agents and other surface contaminants. Diamond grind or track blast	1 <sup>st</sup> Coat	Luxafloor® ECO <sub>2</sub> ®	65 µm
			2 <sup>nd</sup> Coat	Luxafloor® ECO <sub>2</sub> ®	65 µm
CONCRETE	Interior	Remove curing agents and other surface contaminants. Diamond grind or track blast	1 <sup>st</sup> Coat	Luxafloor® ECO <sub>2</sub> ®	65 µm
			2 <sup>nd</sup> Coat	Luxafloor® ECO <sub>2</sub> ® + Stir-In Aggregate Fine @ 30g/L	65 µm

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

<b>SURFACE PREPARATION</b>	<p><b>Concrete Floors:</b> Concrete must be at least 28 days old before coating. Remove oil, grease and other oily contaminants with Gamlen CA 1 (according to the manufacturer's written instructions and all safety warnings). Diamond grind, blast-track or mechanically abrade concrete floors to remove laitance, curing compounds, hardeners, sealers and/or other contaminants and to provide a concrete surface profile of CSP 2-3 per ICRI 310.2R. Remove all dust and debris by vacuum cleaning. Large cracks, voids and other surface imperfections should be filled with a suitable filler/surfacer as recommended by your local Protective Coatings Representative. Check moisture content of the floor prior to painting*.</p> <p>*Allow new concrete to cure a minimum of 28 days at 24°C. To minimise the risk of moisture interference, Dulux recommends the following two tests be performed prior to coating – ASTM F2659 – 10 “Standard Guide for Preliminary Evaluation of Comparative Moisture Condition of Concrete, Gypsum Cement and Other Floor Slabs and Screeds Using a Non-Destructive Electronic Moisture Meter”(moisture content not to exceed 6%) and ASTM D 4263 “Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method” (no visible moisture present).</p> <p>If there is any concern about moisture problems with the concrete slab, or for projects greater than 500m<sup>2</sup>, at least one of the following more accurate quantitative test methods should be used - ASTM F 1869 “Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride” (moisture vapor transmission should not exceed 1.4 kilograms (3 pounds) per 93 square metres (1,000 square feet) in a 24 hour period), ASTM F 2170 “Standard Test Method for Determining Relative Humidity in Concrete using in situ Probes” (as referred to in AS 1884-2012, relative humidity should be less than 75%) Note: The testing listed above cannot guarantee avoidance of future moisture related problems particularly with existing concrete slabs. This is especially true if the use of an under-slab moisture vapor barrier cannot be confirmed or concrete contamination from oils, chemical spills, unreacted silicates, chlorides or Alkali Silica Reaction (ASR) is suspected.</p>											
<b>APPLICATION</b>	<p>Mix each can thoroughly using a power mixer until the contents are 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 with a power mixer and let stand for 3 minutes. Box all containers before use to ensure colour consistency. Remix thoroughly before application. To aid application and penetration, thin the first coat up to 15% with fresh potable water toward the end of the mixing process.</p>											
<b>BRUSH/ROLLER</b>	<p>Cut in with brush around perimeter of floor, then apply by roller. Apply even coats of mixed material to the prepared surface. Dulux® recommends that typical “X” and “Y” roller patterns be used, working in small areas of up to 10m<sup>2</sup> at a time, keeping a wet-edge moving forward. When brushing and rolling additional coats may be required to attain the specified thickness.</p>											
<b>CONVENTIONAL SPRAY</b>	<p>All equipment previously used with solvent based paints should be flushed sequentially with acetone, methylated spirits and finally water before use.</p> <table><tr><td>Typical Set-up</td><td>Graco AirPro</td><td>1.8mm (239543)</td></tr><tr><td></td><td>Pressure at Triton 308:</td><td>70-100 kPa (10-15 p.s.i.)</td></tr><tr><td></td><td>Pressure at Gun:</td><td>380-410 kPa (55-60 p.s.i.)</td></tr></table>			Typical Set-up	Graco AirPro	1.8mm (239543)		Pressure at Triton 308:	70-100 kPa (10-15 p.s.i.)		Pressure at Gun:	380-410 kPa (55-60 p.s.i.)
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<b>AIRLESS SPRAY</b>	<p>Flush equipment sequentially with acetone, methylated spirits and finally water before use. Standard airless spray equipment such as a Graco Xtreme 30:1 with a fluid tip of 17-21 thou (0.43-0.53mm) and an air supply capable of delivering 550-690 kPa (80-100 p.s.i.) at the pump.</p>											
<b>PRECAUTIONS</b>	<p><b>This product is not recommended for car parks or garage floors.</b> 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 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. <b>Do not use any two pack product past its pot life, even if it appears fit for use.</b> Product applied past its pot life will develop poor or patchy gloss, brittleness or other defects. 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 5°C, or where the surface temperature is below 5°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.</p>											
<b>CLEAN UP</b>	<p>Clean all equipment by thoroughly flushing with water and then ethanol or methylated spirits.</p>											

<b>OVERCOATING</b>	Degrease with Gamlen CA 1 according to the manufacturer's written instructions and all safety warnings. Test adhesion of existing coating by standard cross hatch adhesion test. If the coating fails, remove it. Fill any cracks or defects in the concrete with a suitable epoxy filler. Spot prime bare areas with your chosen floor coating. Mechanically grind the existing coating to remove any gloss and create a good key for the new coating. Vacuum clean to remove all dust.
<b>SAFETY PRECAUTIONS</b>	<b>Read Data Sheet, SAFETY DATA SHEET and any precautions on container labels. SAFETY DATA SHEET is available from Customer Service (13 23 77) or <a href="http://www.duluxprotectivecoatings.com.au">www.duluxprotectivecoatings.com.au</a></b>
<b>STORAGE</b>	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.
<b>HANDLING</b>	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.
<b>USING</b>	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.
<b>FLAMMABILITY</b>	This product is non flammable. On burning will emit toxic fumes.
<b>WELDING</b>	Avoid inhalation of fumes if welding surfaces coated with this paint. Grind off coating before welding.

<b>COMPANY INFORMATION</b>		<b>PACKAGING, TRANSPORT AND STORAGE</b>	
Dulux Protective Coatings a division of		<b>PACKAGING</b>	Available in 10 litre packs
DuluxGroup (Australia) Pty Ltd	DuluxGroup (New Zealand) Pty Ltd	<b>TRANSPORTATION WEIGHT</b>	1.50 kg/litre (Average of components)
1956 Dandenong Road, Clayton 3168	150 Hutt Park Road, Lower Hutt, NZ	<b>DANGEROUS GOODS</b>	Part A: Class 8, UN 2735
A.B.N. 67 000 049 427	A.B.N. 55 133 404 118		Part B: Class 9, UN 3082

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