

# DUREMAX® GPE ZP

## General Purpose Epoxy Zinc Phosphate Primer

PC 215

- FEATURES**
- EXCELLENT DURABILITY IN A WIDE RANGE OF ENVIRONMENTS
  - EASE OF APPLICATION - SPRAY, BRUSH, ROLLER
  - INHIBITIVE CORROSION PROTECTION
  - GOOD ABRASION RESISTANCE
  - HIGH BUILD FORMULATION PROVIDES SUPERIOR EDGE PROTECTION COMPARED WITH CONVENTIONAL ZINC PHOSPHATE EPOXIES

**USES** DUREMAX® GPE ZP has been locally developed specially for Australasian conditions using the latest epoxy technology. It is a general-purpose epoxy primer enhanced with zinc phosphate pigment for inhibitive corrosion protection on mild steel. DUREMAX® GPE ZP is a high performance coating for the protection of structures exposed to severe environments such as chemical plants, offshore platforms, refineries, ship loaders and coal wash plants.

**SPECIFICATIONS** AS/NZS 3750.13

### 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>	Resists splash and spillage of most hydrocarbon solvents, refined petroleum products and most common 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>	Suitable for splash and spillage of strong alkali
<b>ACIDS</b>	Suitable for splash and spillage of mild acids	<b>ABRASION</b>	Good when fully cured

### TYPICAL PROPERTIES AND APPLICATION DATA (STANDARD HARDENER)

<b>CLASSIFICATION</b>	Anticorrosive epoxy primer	<b>APPLICATION CONDITIONS</b>			
<b>FINISH</b>	Semi Gloss		Min	Max	
<b>COLOUR</b>	Light-mid grey (approximate match to AS2700 N33 Lightbox Grey)	<b>Air Temp.</b>	10°C	45°C	
		<b>Substrate Temp.</b>	10°C	45°C	
		<b>Relative Humidity</b>		85%	
		<b>Concrete Moisture</b>		<10%	
<b>COMPONENTS</b>	Two	<b>COATING THICKNESS (MICRONS)</b>			
<b>VOLUME SOLIDS</b>	71%		Min	Max	Recommended
<b>VOC LEVEL</b>	<330 g/L	<b>Wet film per coat (µm)</b>	140	280	175
<b>FLASH POINT</b>	4°C	<b>Dry film per coat (µm)</b>	100	200	125
<b>POT LIFE</b>	3 – 4 hours (4 litre kit, 25°C)	<b>SUITABLE SUBSTRATES</b>	Blast cleaned steel and galvanised steel		
<b>MIXING RATIO V/V</b>	Part A : 4    Part B : 1	<b>PRIMERS</b>	Not applicable		
<b>THINNER</b>	920-08925    Dulux® Epoxy Thinner	<b>TOPCOATS</b>	Most Dulux® two pack topcoats		
<b>THINNER – LOW TEMPERATURES</b>	920-81942    Dulux® Duthin® 450	<b>APPLICATION METHODS</b>	Brush, roller, conventional, airless spray or air assisted spray		
<b>PRODUCT CODE</b>	780-52033    Grey 976-84577    Standard Hardener 976-84741    Fast Cure Hardener 976-84892    Quickturn™ Hardener				

### DRYING CHARACTERISTICS AT 125 µm DRY FILM THICKNESS\* (STANDARD HARDENER)

Temperature	Humidity	Touch	Handle	Full Cure	OVERCOAT	
					Min	Max <sup>1</sup>
10° C	50%	16 Hours	28 Hours	7 Days	28 Hours	4 Weeks
15° C	50%	12 Hours	20 Hours	7 Days	20 Hours	4 Weeks
25° C	50%	4 Hours	10 Hours	7 Days	8 Hours	4 Weeks

\*These figures are a guide only, as ventilation, film thickness, humidity, thinning and other factors will influence the rate of drying.  
<sup>1</sup>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

**5.7 square metres per litre equals 125 µm dry film thickness**

NOTE: Practical spreading rates will vary depending on such factors as application method, ambient conditions, surface porosity and roughness.

# DUREMAX® GPE ZP

## FAST CURE HARDENER

### COATING THICKNESS (MICRONS)

	Min	Max	Recommended
Wet film per coat (µm)	135	270	170
Dry film per coat (µm)	100	200	125
<b>SOLIDS BY VOLUME</b>	75%		
<b>VOC LEVEL</b>	<300 g/L		
<b>POT LIFE</b>	2 hours (4 litre kit, 25°C)		

### APPLICATION CONDITIONS

	Min	Max
<b>Air Temperature</b>	5°C	45°C
<b>Substrate Surface Temperature</b>	5°C	45°C
<b>Relative Humidity</b>		85%
<b>Concrete Moisture Content</b>		<10%

## DRYING CHARACTERISTICS AT 125 µm DRY FILM THICKNESS\* (FAST CURE HARDENER)

### OVERCOAT

Temperature	Humidity	Touch	Handle	Full Cure	Min	Max <sup>1</sup>
5° C	50%	9 Hours	18 Hours	7 Days	18 Hours	4 Weeks
10° C	50%	6 Hours	14 Hours	7 Days	14 Hours	4 Weeks
15° C	50%	5 Hours	10 Hours	7 Days	10 Hours	4 Weeks
25° C	50%	2.5 Hours	6 Hours	7 Days	6 Hours	4 Weeks

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

<sup>1</sup> If the maximum overcoat interval is exceeded then the surface **MUST** be abraded to ensure maximum intercoat adhesion.

Use of fast or low temperature hardeners may result in increased yellowing and a reduction of gloss level

### SPREADING RATE

with Fast Cure Hardener  
assuming no losses

**6.0 square metres per litre equals 125 µm dry film thickness**

NOTE: Practical spreading rates will vary depending on such factors as application method, ambient conditions, surface porosity and roughness.

## QUICKTURN™ HARDENER

### COATING THICKNESS (MICRONS)

	Min	Max	Recommended
Wet film per coat (µm)	140	280	175
Dry film per coat (µm)	100	200	125
<b>SOLIDS BY VOLUME</b>	72%		
<b>VOC LEVEL</b>	<310 g/L		
<b>POT LIFE</b>	90 Minutes (4 litre kit, 25°C)		

### APPLICATION CONDITIONS

	Min	Max
<b>Air Temperature</b>	5°C	35°C
<b>Substrate Surface Temperature</b>	5°C	35°C
<b>Relative Humidity</b>		85%
<b>Concrete Moisture Content</b>		<10%

## DRYING CHARACTERISTICS AT 125 µm DRY FILM THICKNESS\* (QUICKTURN™ HARDENER)

### OVERCOAT

Temperature	Humidity	Touch	Handle	Full Cure	Min	Max <sup>1</sup>
5° C	50%	7 Hours	14 Hours	7 Days	14 Hours	4 Weeks
10° C	50%	5 Hours	9 Hours	7 Days	9 Hours	4 Weeks
15° C	50%	3 Hours	5 Hours	7 Days	5 Hours	4 Weeks
25° C	50%	90 Minutes	3 Hours	7 Days	3 Hours	4 Weeks

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

<sup>1</sup> If the maximum overcoat interval is exceeded then the surface **MUST** be abraded to ensure maximum intercoat adhesion.

Use of fast or low temperature hardeners may result in increased yellowing and a reduction of gloss level.

### SPREADING RATE

with Quickturn™ Hardener  
assuming no losses

**5.8 square metres per litre equals 125 µm dry film thickness**

NOTE: Practical spreading rates will vary depending on such factors as application method, ambient conditions, surface porosity and roughness.

# DUREMAX® GPE ZP

## 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	Moderate – High (AS2312.1 Cat C4)	Abrasive blast clean AS1627.4 Class 2.5	1 <sup>st</sup> Coat Duremax® GPE ZP 2 <sup>nd</sup> Coat Duremax® GPE MIO 3 <sup>rd</sup> Coat Duremax® GPE MIO	125 µm 125 µm 125 µm
STEEL – NEW	Mild – Moderate (AS2312.1 Cat 3)	Abrasive blast clean AS1627.4 Class 2.5	1 <sup>st</sup> Coat Duremax® GPE ZP 2 <sup>nd</sup> Coat Weathermax® HBR	125 µm 100 µm
STEEL – NEW	Interior	Abrasive blast clean AS1627.4 Class 2.5	1 <sup>st</sup> Coat Duremax® GPE ZP 2 <sup>nd</sup> Coat Duremax® GPE	125 µm 125 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>	<b>Steel:</b> Round off all rough welds, sharp edges and remove weld spatter. Remove grease, oil and other contaminants in accordance with AS1627.1. Degrease with Gamlen CA 1 (a free-rinsing, alkaline detergent) according to the manufacturer's written instructions and all safety warnings. Abrasive blast clean to a minimum of AS1627.4 Class 2.5.
<b>APPLICATION</b>	Mix each can thoroughly using a power mixer until the contents are uniform. Mix the contents of both packs together thoroughly using a power mixer and allow to stand for 10 minutes. Remix thoroughly before application.
<b>BRUSH/ROLLER</b>	Apply even coats of the mixed material to the prepared surface. When brushing and rolling additional coats may be required to attain the specified thickness.
<b>CONVENTIONAL SPRAY</b>	Thinning is not normally required, however a small amount (5% or less by volume) of Dulux® Epoxy Thinner (920-08925) or Duthin® 450 (920-81942) can be added. Typical Set-up Graco AirPro 1.8mm (239543) Pressure at Triton 308: 70-100 kPa (10-15 p.s.i.) Pressure at Gun: 380-415 kPa (55-60 p.s.i.)
<b>AIRLESS SPRAY</b>	Standard airless spray equipment such as 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 usually required but up to 50ml/litre of Dulux® Epoxy Thinner (920-08925) or Duthin® 450 (920-81942) may be added to aid application.
<b>PRECAUTIONS</b>	This is an industrial product designed for use by experienced Protective 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 express written consent of Dulux® Australia. Freshly mixed material must not be added to material that has been mixed for some time. Do not apply at temperatures below 10°C when using Standard hardener or 5°C when using Fast Cure or Quickturn™ hardener. In cold conditions. Where a fast thinner is required, use Duthin® 450 (920-81942). Do not apply at relative humidity above 85% or when the surface is less than 3°C above the dewpoint. DO NOT USE on galvanised steel when using Fast Cure hardener as delamination can occur. Use of fast or low temperature hardeners may result in increased yellowing and a reduction of gloss level.
<b>CLEAN UP</b>	Clean all equipment with Dulux® Epoxy Thinner (920-08925) or Duthin® 450 (920-81942) immediately after use.
<b>OVERCOATING</b>	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.
<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>	Store as required for a flammable liquid Class 3 in a bunded area under cover. Store in well-ventilated area away from sources of heat or ignition. 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 flammable. All sources of ignition must be eliminated in, or near the working area. DO NOT SMOKE. Fight fire with foam, CO <sub>2</sub> or dry chemical powder. 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.

### COMPANY INFORMATION

Dulux Protective Coatings a division of

DuluxGroup (Australia) Pty Ltd  
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### PACKAGING, TRANSPORT AND STORAGE

PACKAGING	Available in 4 litre and 15 litre packs
TRANSPORTATION WEIGHT	1.6 kg/litre (Average of components)
DANGEROUS GOODS	Part A: Class 3 UN 1263 Part B: Class 8,3 UN 2734 (Standard)

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