

# EPINAMEL® DTS680 (Formerly Macropoxy® 680)

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## Description

- A two-component, surface tolerant, high solids, medium build, direct to substrate, polyamine adduct cured epoxy.
- Conforms to AS/NZS 3750.14.
- Approved to APAS 2973.

## Product Characteristics

- Maintenance coating for use in a wide range of industrial applications as a primer, build coat or finish coat on suitably prepared metal and concrete substrates.
- Tolerant to lower grades of steel preparation for atmospheric exposure.
- Excellent recoatability.
- Cures down to 0°C with Low Temperature (LT) Part B
- Excellent abrasion resistance.
- Resistant to splash of alkali, mineral oils, solvents and dilute acids.
- Suitable for immersion in salt and fresh water.

## Colours and Gloss

- AS 2700 Colour card light and clear base colours only – gloss.
- Only factory manufactured white is suitable for immersion applications.

## Recommended Film Thickness (Per Coat)

	Minimum	Maximum	Typical
Dry film thickness (µm)	100	250	125
Wet film thickness (µm)	120	295	145
Theoretical spreading rate (m <sup>2</sup> /l)	8.5	3.4	6.8

## Basic Data at 25°C

Solids content approx.	85% by volume
Mix ratio	3A:1B by volume
Touch dry after	3-4 hours (Std Part B) 2 hours (LT Part B)
Full cure	5 days (Std Part B) 3 days (LT Part B)
Temperature resistance	95°C (dry), 35°C (wet)

## Surface Preparation

- All surfaces to be coated must be clean, dry and free from chalking and contamination.
- Previous suitable coat; dry and free from any contamination and sufficiently roughened if necessary.
- Oil and grease should be removed from all surfaces in accordance with AS 1627.1 solvent cleaning.

### MILD STEEL

- Blast clean in accordance with AS 1627.4 to Sa 2½ minimum (AS 1627.9), surface profile 40-70 microns.
- Power tool clean in accordance with AS 1627.2 to St 2 minimum (AS 1627.9), (atmospheric exposure only).

### GALVANISED STEEL

- Lightly blast using an inert grit or power tool clean to achieve a roughened uniform flat appearance (atmospheric exposure only).
- If oxidation occurs between blasting and application, the surface should be re-blasted to the specified visual standard.
- Surface defects revealed by the blast cleaning process should be ground, filled or treated in the appropriate manner.

### CONCRETE

- Must be free from bond breakers, curing agents or any other contaminants that may interfere with adhesion.
- Blast clean to remove all laitance.
- Acid etch to remove all laitance (atmospheric exposure only).
- Ensure all new concrete is fully cured prior to coating. Typically this may take a minimum of 4-6 weeks.
- Moisture content of concrete should be max. 4%.
- Substrate temperature must be at least 5°C during application and 3°C above dew point.
- Relative humidity should not exceed 85%.

## Application Instructions

- Mixing ratio by volume: 3A:1B.
- Mix Epinamel DTS680 Part A with Epinamel DTM985/DTS680 Standard or Low Temperature (LT) Part B only.
- Induction time – none.
- Pot life at 25°C – 2½ hours (Std Part B), 1 hour (LT Part B).
- Stir the components and mixed product well using a mechanical mixer.
- Low temperature Part B is not recommended for use at temperatures above 35°C.
- The temperature of the mixed product must be above 15°C, otherwise extra thinner may be required to obtain application viscosity.
- Too much thinner will result in lower sag resistance and slower cure. Thinner should only be added after mixing the components.
- Freshly catalysed material should not be added to product that has been mixed for some time.
- Wattyl recommends the use of coating inspection reports in compliance with AS/NZS 3894.10,11,12 refer to Information Sheet I-20 for more information.
- For recommendations outside those contained in this data sheet, refer to Wattyl.

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## Application Methods

	AIRLESS SPRAY	AIR SPRAY	BRUSH/ROLLER
Recommended thinner	Thinner L760	Thinner L760	Thinner L760
Volume of thinner	0-5%	0-10%	0-10%
Tip	0.53-0.58mm (0.021-0.023 inch)	1.5-2.0mm (0.059-0.0078 inch)	<ul style="list-style-type: none"> <li>The maximum dry film thickness that can be achieved when brushing/rolling is 100 microns.</li> <li>Multiple coats may be required to achieve the recommended dry film thickness.</li> <li>Nylon/polyester or natural bristle brushes recommended.</li> <li>Recommended roller cover should be 10mm woven with a solvent resistant core.</li> </ul>
Fluid/Atomised pressure	15 MPa (2100 psi)	2.1-4.1 bar (30-60 psi)	
Pump	30:1	-	
Hose	¼" ID (6.3mm)	-	
Filter	60 mesh	-	

**CLEANING SOLVENT** | Thinner L760

## Safety Precautions

- Flammable. Avoid contact with heat and naked flame.
- Avoid contact with skin and eyes.
- Use gloves, mask and goggles during application.
- Provide adequate ventilation when using in confined spaces.
- This product is intended for use in industrial situations by professional applicators in accordance with the advice given on this sheet. All work involving the use and application of this product should be carried out in compliance with all relevant Health, Safety & Environmental standards and regulations and must not be used without reference to the safety data sheet (SDS).

## Additional Data

### OVERCOATING TABLE

Overcoating interval for EpinameL DTS680 cured with Standard Part B when top coating with **EpinameL DTS680**.

Interval	5°C	15°C	25°C	35°C
Min	16 hrs	8 hrs	4 hrs	2 hrs
Max	3 mths	3 mths	2 mths	2 mths

Overcoating interval for EpinameL DTS680 cured with Low Temperature (LT) Part B when top coating with **EpinameL DTS680**.

Interval	5°C	15°C	25°C	35°C
Min	8 hrs	5 hrs	3 hrs	NR
Max	1 mth	1 mth	14 days	NR

Overcoating interval for EpinameL DTS680 cured with Standard Part B when top coating with **Poly U400 and Poly U750**.

Interval	5°C	15°C	25°C	35°C
Min	16 hrs	8 hrs	4 hrs	2 hrs
Max	1 mth	1 mth	1 mth	1 mth

Overcoating interval for EpinameL DTS680 cured with Low Temperature (LT) Part B when top coating with **Poly U400 and Poly U750**.

Interval	5°C	15°C	25°C	35°C
Min	8 hrs	6 hrs	4 hrs	NR
Max	1 mth	1 mth	14 days	NR

Overcoating interval for EpinameL DTS680 cured with Standard Part B when top coating with **Paracryl IF540**.

Interval	5°C	15°C	25°C	35°C
Min	16 hrs	10 hrs	5 hrs	3 hrs
Max	1 mth	1 mth	14 days	7 days

Overcoating interval for EpinameL DTS680 cured with Low Temperature (LT) Part B when top coating with **Paracryl IF540**.

Interval	5°C	15°C	25°C	35°C
Min	8 hrs	6 hrs	4 hrs	2 hrs
Max	1 mth	1 mth	7 days	7 days

- Surface must be dry and free from chalking and contamination prior to overcoating. If overcoating interval is exceeded, the surface must be dry and free from chalking and contamination and sufficiently roughened.

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## CURING AND POTLIFE TABLE

EpinameL DTS680 Cured with Standard Part B.

Paint temperature	5°C	15°C	25°C	35°C
Dry to handle	24 hrs	12 hrs	6 hrs	3 hrs
Full cure	8 days	7 days	5 days	3 days
Potlife (at applicable viscosity)	8 hrs	5 hrs	2½ hrs	1¼ hr

EpinameL DTS680 Cured with Low Temperature (LT) Part B.

Paint temperature	5°C	15°C	25°C	35°C
Dry to handle	12 hrs	5 hrs	3 hrs	NR
Full cure	12 days	5 days	3 days	NR
Potlife (at applicable viscosity)	4 hrs	2 hrs	1 hr	NR

- Adequate ventilation must be continuously maintained during application and curing.
- Premature exposure to water may cause colour or gloss change but will not affect the coating performance.

## Precautions

- For recommendations outside those contained in this data sheet, refer to Wattyl.
- Epoxy coatings characteristically chalk or discolour on exterior exposure - this does not detract from their protective performance. For exterior atmospheric coating systems requiring colour retention and resistance to chalking, topcoat with a suitable product. Such products may include Poly U400, Poly U750 or Paracryl IF540. Ensure the system is suitable for your intended application.

## Product Compatibility

### PRIMERS

- Galvit EP100
- Galvit ES510
- Galvit ES600
- EpinameL PR250
- EpinameL PR360ZPS

### TOPCOATS

- EpinameL DTS680
- Poly U400 (colours)
- Poly U750
- Paracryl IF540 (colours)
- Colourthane C-Series

## Storage and Packaging

- Shelf life at least 12 months.
- All components shall be stored in a dry internal environment at between 5°C and 35°C.
- Packaging: 20 litre kit (15 litre Part A, 5 litre Part B)  
4 litre kit (3 litre Part A, 1 litre Part B)
- Product line: 2018.

For the most up to date information, please visit our website at [www.wattylpc.com.au](http://www.wattylpc.com.au), or contact us at Australia 132 101 (Australia) 0800 825 7727 (New Zealand).

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