

# DATA SHEET

# EPO100C CLEAR EPOXY

100% SOLIDS, LOW VOC,  
WATER CLEAR EPOXY



ALL PURPOSE COATINGS

## DESCRIPTION

EPO100C® is a 100% Solids, two-part cycloaliphatic amine cured epoxy resin, designed for applications demanding high structural integrity or water clear resin. EPO100C® exhibits excellent adhesion and high structural strengths. The exceptional resistance to a wide variety of chemical spillage and vapours makes this product ideal for use in heavy industry environments. While the clarity and ability to be coupled with slow curing hardeners makes EPO100C® ideal for river tables, encapsulation and casting purposes as well.

## PRODUCT INFORMATION


<b>Pot Life</b>	30-45 minutes at 25°C.
<b>Shelf Life</b>	2 years. Store in a cool, dry area and out of direct sunlight
<b>Coverage</b>	As a pour on application, 1m <sup>2</sup> /L = 1mm depth.
<b>Casting</b>	Maximum 10-15mm depth in a single pour, without exceeding 15L.
<b>Heat Resistance</b>	Epoxy will not begin to soften at 90°C.
<b>Clean Up</b>	Clean tools with 150T Epoxy Thinners while still wet and discard rollers and brushes
<b>Work Time Per Pack</b>	0.5 hours
<b>Tack Free Time</b>	2 hours at 25°C in 150ml pot.
<b>Return to Service</b>	<b>Light Foot Traffic:</b> 24 hours after completion of the job. <b>Vehicle Traffic:</b> 24-48 hours after the completion of the job. <b>Sure Hardness:</b> 72 hours after the completion of the job. <b>Full Chemical Cure:</b> 7 days after the completion of the job.
<b>Mixing Ratio</b>	<b>EPO100C Pour Mix:</b> (2:1) 2 Parts EPO100C (Part A): 1 Part EPO100C (Part B) <b>Self-Levelling Compound:</b> (1:1) 1 Part EPO100C Mix (Part A & B): 1 Part Silica Sand (90 MPa) <b>Flowable Mortar:</b> (1:3) 1 Part EPO100C Mix (Part A & B): 3 Parts Silica Sand(70 MPa) <b>Trowelable Mortar:</b> (1:4) 1 Part EPO100C Mix (Part A & B): 4 Parts Silica Sand (55 MPa) <b>Stiff Mortar:</b> (1:6) 1 Part EPO100C Mix (Part A & B): 6 Parts Silica Sand (50 MPa)
<b>Mixing Ratio - Ceramic</b>	<b>Flowable Mortar:</b> (3:4) 1 Part EPO100C Mix (Part A & B): 4 Parts Ceramic Filler (90 MPa) <b>Trowelable Mortar:</b> (3:5) 1Part EPO100C Mix (Part A& B): 5 Parts Ceramic Filler (90 MPa)
<b>Maintenance</b>	Refer to APC Clean and Care guide.

## RECOMMENDED USES

- Binding systems
- Coving
- Mortar
- Crack repair
- Encapsulation
- Self-level system
- Casting and deep pours – experienced users

## FEATURES & BENEFITS

- APAS Approved
- Australian Made
- Smooth, gloss finish
- Excellent chemical resistance
- Industrial strength
- Excellent adhesion
- High build application
- Food contact safe
- Water clear
- Low yellowing properties
- High gloss
- Solvent free
- Low viscosity
- Low VOCs
- MPa greater than concrete

 Refer to individual SDS and Installation Instructions for system specifications and recommended PPE.

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## ENVIRONMENTAL CONDITIONS

Temperature and the surrounding atmospheric conditions will play a part in the curing process of all epoxy products. Under conditions of low temperatures and high humidity, the final cured surface finish can be adversely affected potentially resulting in poor gloss retention, discolouration over time, poor overcoat ability, and inter-coat adhesion. Quite often these conditions will result in the formation of a white film over the surface often evident after contact with water. This chemical reaction with the atmosphere is commonly referred to as "amine bloom" or "amine blush".

If this occurs then the existing coating will need to be abraded to completely remove the affected surface to ensure the adhesion of subsequent application. In some cases, partial or complete re-priming may be necessary. Attention also needs to be paid to the substrate temperature which should be at least 10°C and preferably 5°C above the dew point during the curing phase. Ideal humidity is 50-70%.

Industry standards recommend the accurate recording of times and dates, batch numbers, consumption rates, and environmental conditions including the substrate and air temperatures, humidity levels, and dew point readings during both the application and curing process. Full material warranties cannot be provided unless all the relevant data has been recorded accurately.


## SURFACE PREPARATION

- Ensure the concrete is sufficiently cured to the recommended minimum of 28 days from completion.
- Diamond grind or Polyvac the substrate. The surfaces must be clean, dry, and free from all traces of loose material, old coatings, curing compounds, release agents, laitance, oil, and grease, etc. This must be completed by diamond grinding or a suitable cleaning method.
- To check that all traces of oil and other contaminants have been completely removed, sprinkle a few drops of water over the surface. If all water is quickly absorbed, the surface is sufficiently oil and grease-free.
- If water forms into globules that remain on the surface, further thorough treatment of the substrate is necessary.
- Substrate compression strength should be at least 25MPa, cohesive bond strength at least 1.5MPa, and moisture content below 4%.
- Repair and fill cracks with EPO100EP Epoxy Putty or Concrete Repair Kit.

## PRODUCT APPLICATION

EPO100C® is specifically designed for epoxy mortars, repairs, and pours at depth. It's ability to be coupled with multiple of our speciality hardeners makes it a versatile choice for any number of projects.

Mix 2 Parts A with 1 Part B (2:1) by volume. Mix with a drill mixer at a slow speed for 2 minutes. Ensure the sides and bottom of the container/bucket are mixed. Tilt the drill to the side to ensure the product on top of the container/bucket is mixing in with the product on the bottom. In normal curing conditions, the EPO100C® Coating Kit does not require an induction time and coating can begin immediately after mixing. For colder climates, see product cautions for further information on mixing and induction times. For system specific instructions, consult the All Purpose Coatings Installation Instruction documentation, located on the website.

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## CAUTIONS

- Thoroughly mix Part A and Part B using a powered drill with a paint mixing attachment for 2 minutes. Ensure that all materials on the sides and on the mixer are combined thoroughly to avoid hot spots in the coating that may never cure on application.
- The mix ratio is calculated by product volume. NOT BY PRODUCT WEIGHT. Mixing product by weight may result in an unsatisfactory cure time or failure of the mix to cure entirely.
- To achieve optimum results in colder climates, you may need to warm the resin or introduce an induction time before application. This will jump start the curing process. For further information, consult All Purpose Coatings, technical advisers.
- Exposure to sunlight and UV radiation can result in discolouration and chalking of the cured surface. While this will have no adverse effect on the protective functions of the coating, the system can be finished with a UV stable and protectant top coat such as, Sparta60, or Sparta Guard.

### Cautions for rivetables and deep pours:

- **Maximum of 15L (mixed Part A and Part B) is advised for large pours in order to control the maximum exothermic curing temperature.**
- When completing a project in stages the waiting time is around 2-3 hours between pours or until it is firm or is in the gel stage. **DO NOT POUR MULTIPLE MIXES AS A SINGLE POUR.**
- All Epoxies will reach a higher temperature when conducting larger pours.
- **Recommended for experienced installers only.**
- Spills, including water should be cleaned up as soon as possible.



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## PHYSICAL PROPERTIES

<b>Solids Content</b>	100 %	<b>Heat Distortion Temperature</b>	ASTM D648:50°C
<b>Finish</b>	Gloss	<b>Bond Strength to Concrete</b>	100% Concrete failure
<b>Impact Strength</b>	High	<b>Density</b>	Part A: 1.1 Part B: 1
<b>Compressive Strength</b>	ASTM D695: 12,000 psi	<b>Resistance to Chemical Spills(7 days at 25°C)</b>	
<b>Tensile Strength</b>	ASTM D638: 3,900 psi	Ammonia Solution (20%)	Sodium Hydroxide (30%)
<b>Elongation at Break</b>	ASTM D638: 7.00%	Sulphuric Acid (30%)	Kerosene
<b>Taber Abrasion Resistance</b>	ASTM D4060: <0.1g loss (mg or loss/1000 cycles) CS-17-wheel, 1kg load	Lactic Acid (5%)	Aviation Fuels
<b>Water Absorption</b>	ASTM D570:0/07% (2-hour boil)	Sodium Chloride (50%)	Petrol
<b>Flexural Strength</b>	ASTM D790:7,800 psi	Tannic Acid	Hydrochloric Acid (20%)
<b>Shore D Hardness</b>	ASTM D2240:89	Acetic Acid (5%)	Toluene

Sample Identification	Critical Heat Flux (kW/m2)			Smoke Value %.min		
	≤11	≤11	≤11	5	1	2
Epoxy Coating Kit Tinted EPO100T®	Average: ≤11			Average: 3		
Epoxy Resin Clear Glaze EPO100G®	Average: ≤11			Average: <4		
Epoxy Resin Clear EPO100C®	Average: ≤11			Average: <4		

In an emergency, contact the Poisons Information Centre on 13 11 26 or a doctor for advice.

**IF THE SITUATION IS LIFE THREATENING, DIAL 000 IMMEDIATELY.**

DISCLAIMER: Please ensure you read the SDS & TDS thoroughly & carefully before the use or application of any All Purpose Coatings product. These documents contain information in context to how you will apply the product, including if it is being used in conjunction with any other products or systems, and to what surface the product will be applied. All-Purpose Coatings Pty Ltd does not accept any liability either directly or indirectly for any losses that arise from the use or application of the product in accordance with any advice, specification & recommendation given by the companies' documentation or representatives at any point in time. Application, performance & safety data may change from time to time. It is the user and/or applicators' responsibility to ensure they have the latest copy of any documentation pertaining to their project.

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