

DATA SHEET

EPO100C CLEAR EPOXY

100% Solids, VOC Free, Water Clear Epoxy



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 fumes 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 & casting purposes as well.

Recommended Uses

- Binding Systems
- Coving
- Mortar
- Crack Repair
- Encapsulation
- Self-Level System
- Casting and Deep Pours – Experienced Users

Features & Benefits

- Smooth, Gloss Finish
- Excellent Chemical Resistance
- Industrial Strength and Excellent Adhesion
- High Build Application
- Food Contact Safe
- Bond strength stronger than concrete
- Water Clear
- Low Yellowing Properties

Product Information

Pot Life	30-45 minutes at 25°C.
Shelf Life	2 years. Store in a cool, dry area and out of direct sunlight
Coverage	1m ² /L = 1mm depth. As a pour on application.
Casting	Maximum 10-15mm depth in a single pour, without exceeding 15L.
Heat Resistance	Epoxy will not begin to soften until 90°C.
Clean Up	Clean tools with 150 Epoxy Thinners while still wet and discard rollers and brushes
Work Time Per Pack	0.5 hours
Tack Free Time	2 hours at 25°C in 150ml pot.
Return to Service	Light Foot Traffic: 24 hours after completion of the job. Vehicle Traffic: 24-48 hours after the completion of the job. Sure Hardness: 72 hours after the completion of the job. Full Chemical Cure: 7 days after the completion of the job.
Mixing Ratio	EPO100C Pour Mix: (2:1) 2 Parts EPO100C (Part A): 1 Part EPO100CH (Part B)
Mixing Ratio - Silica Sand	Self-Levelling Compound: (1:1) 1 Part EPO100C Mix (Part A & B): 1 Part Silica Sand (90 MPa) Flowable Mortar: (1:3) 1 Part EPO100C Mix (Part A & B): 3 Parts Silica Sand (70 MPa) Trowelable Mortar: (1:4) 1 Part EPO100C Mix (Part A & B): 4 Parts Silica Sand (55 MPa) Stiff Mortar: (1:6) 1 Part EPO100C Mix (Part A & B): 6 Parts Silica Sand (50 MPa)
Mixing Ratio - Ceramic	Flowable Mortar: (3:4) 1 Part EPO100C Mix (Part A & B): 4 Parts Ceramic Filler (90 MPa) Trowelable Mortar: (3:5) 1 Part EPO100C Mix (Part A & B): 5 Parts Ceramic Filler (90 MPa)

Physical Properties

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

DATA SHEET

EPO100C CLEAR EPOXY

100% Solids, VOC Free, Water Clear Epoxy



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

Surface Preparation

Diamond grind or Polyvac the substrate. Surfaces must be clean, dry and free from all traces of loose material, old coatings, curing compounds, release agents, laitance, oil and greases etc. Substrate compressive strength should be at least 25MPa, cohesive bond strength at least 1.5MPa and moisture content below 4%.

Structurally unsound layers and surface contaminants must be mechanically removed by grinding or other methods. Substrates heavily impregnated with oil must be cleaned by grinding or suitable solvent cleaning methods. To check that all traces of oil 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. Cleaning methods are to be repeated if the water is pooling on the surface.

Repair and fill cracks with EPO100EP Epoxy Putty or Concrete Repair Kit

Product Application

EPO100C® is specifically designed for epoxy mortars, repairs, casting, 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.

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.

CONTINUE OVER THE PAGE

DATA SHEET

EPO100C CLEAR EPOXY

100% Solids, VOC Free, Water Clear Epoxy



Cautions Continued

- 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 500T Tetrathane®, Sparta60 or Sparta Guard.
- **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.

*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.