

GENERAL PURPOSE CLEAR EPOXY

Heavy Industry Clear Epoxy



Description

General Purpose Clear Epoxy is a 100% solids, two-part cycloaliphatic amine cured epoxy resin, designed as a concrete primer and binder. GP Clear exhibits excellent adhesion, high structural strengths, and has been formulated with an A/F blend, resulting in high chemical resistance. The exceptional resistance to a wide variety of chemical spillage and vapours makes this product ideal for use in heavy industry environments.

***Please note this product is not recommended as a top coat.**

Recommended Uses

- Binding systems
- Coving
- Mortar
- Crack repair
- Encapsulation
- Prime or sacrifice coat

Features and Benefits

- Australian made
- Industrial strength
- Excellent adhesion
- High build application
- Solvent free
- Low viscosity
- Low VOCs
- MPa greater than concrete

Product Information

Mixing Ratio	EPO100C Mix (2:1) 2 litres EPO100C Part A 1 litre EPO100C Part B
Mortar Ratio	Self Priming Mortar - 3L : 20kg 3 litres EPO100C mix (Parts A & B) 20 kilograms Silica Sand (55 MPa) Stiff Mortar - 1.5L:20kg 1.5 litres EPO100C mix (Parts A & B) 20 kilograms Silica Sand (50 MPa)
Ceramic Ratios	Ceramic Screed - 3L : 4L 3 litres EPO100C mix (Parts A & B) 4 litres Ceramic Filler (90 MPa) Ceramic Putty - 3L : 5L 3 litres EPO100C mix (Parts A & B) 5 litres Ceramic Filler (90 MPa)
Additives	Epoxy Thinners: when applying as a roll coat, 5% Epoxy Thinners should be added for ease of application, depending on the porosity of the substrate. Accelerator: APC Accelerator can be used to accelerate cure times.
Coverage	4 - 6m ² /L Dependent on the system, application and porosity of the substrate
Shelf Life	2 years. Store in a cool, dry area and out of direct sunlight.

NOTE: Refer to individual Installation Instructions & SDS for mixing instructions, recommended PPE during preparation & application of products.

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TECHNICAL DATA SHEET APC V0124

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Product Information (Continued)

Heat Resistance	Epoxy will begin to soften at 90°C
Clean Up	Clean tools with Epoxy Thinners while still wet and discard rollers and brushes.
Cure Times	Pot life: 40 minutes Thin tack free: 12 hours Thin shore hardness: 24 hours Full chemical cure: 7 days Light foot traffic: 24 hours
Testing Information	Cure times were completed at 25°C in a 150g container or at 200µm.
Maintenance	Refer to APC Clean and Care guide.

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. The ideal humidity is less than 60%. 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 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%.
- Fill cracks with EPO100EP Epoxy Putty or Concrete Repair Kit.

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Product Application

- GP Clear is specifically designed as a binder for use in epoxy mortars, repairs, screed coats, and as a prime or sacrifice coat. Its ability to be coupled with multiple of our specialty 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 mixed in with the product on the bottom. If mixing sand or ceramic, only add the dry products once the wet, or Part A and Part B, have been mixed thoroughly.
- In normal curing conditions, the GP Clear 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.

Physical Properties

Solids Content	100%
Impact Resistance	AS 1580.406.1: high
Compressive Strength	ASTM D695: 12,000 PSI
Tensile Strength	ASTM D638: 3,900 PSI
Elongation at Break	ASTM D638: 7.00%
Water Absorption	ASTM D570: 0/07% (2 hour boil)
Flexural Strength	ASTM D790: 7,800 psi
Shore D Hardness	ASTM D2240: 84
Bond Strength to Concrete	100% concrete failure
Heat Distortion Temperature	ASTM D648: 50°C
Volatile Organic Compounds	AP-T002: very low

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CAUTION

- Not recommended as a top coat.
- Thoroughly mix Part A and Part B using a drill mixer at a slow speed 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. Mortar mix ratios are the one exception where the epoxy is added by volume and the sand is added by weight.
- 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 APC, technical advisers.
- All solvents, corrosives, and spills should be cleaned up as soon as possible.
- Sunlight and UV radiation can cause discolouration and chalking of the surface. However, this won't affect the coating's protective functions.

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