

# TECHNICAL DATA SHEET

## EPO-HI® GP TINTED EPOXY WINTER HARDENER

### Heavy Industry Tinted Epoxy



### Description

EPO-HI® General Purpose Tinted Epoxy Winter Hardener is a specialty epoxy curing agent specifically for use in cooler weather and is to be mixed with EPO-HI® GP Tinted Epoxy. EPO-HI® GP Tinted Epoxy Winter Hardener shortens the curing time and reduces the risk of amine blushing in cooler conditions. EPO-HI® GP Tinted Epoxy exhibits excellent adhesion, high structural strengths and has been formulated with a bisphenol 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 for residential projects.

### Recommended Uses

- Mechanical workshops
- Mining construction
- Factories and manufacturing facilities
- Car parks, loading bays and ramps
- Exhibition halls and showrooms
- Wet and dry processing areas
- Warehouses

### Features and Benefits

- Australian Made
- High gloss
- Excellent adhesion with high durability
- Self-levelling and self-priming
- Low VOCs (Volatile Organic Compounds)
- Low viscosity
- Excellent abrasion resistance
- Good chemical resistance
- Pre-coloured/tinted
- Solvent free
- Food contact safe

### Product Information

#### Mixing Ratio

(3:1) 3 parts GP Tinted Part A : 1 part GP Tinted Winter Hardener Part B by volume.

#### Coverage

3-8m<sup>2</sup>/L depending on the system, application and porosity of the surface.

#### Dry Film Thickness

125-330 µm depending on the system, and application.

#### Shelf Life

2 years. Store in a cool, dry area and out of direct sunlight.

#### Heat Resistance

Epoxy will not begin to soften until 90°C.

#### Clean Up

Clean tools with APC Thinners while still wet and discard rollers and brushes.

#### Cure Times

**Pot life:** 35 minutes

**Work time:** 40 minutes

**Thin tack free:** 5 hours

**Thin shore hard:** 72 hours

**Max recoat time:** 72 hours without sanding

Note: No water or condensation should come into contact with the coating for **3-5 days** from installation.

#### Return to Service

**Light foot traffic:** 24 hours

**Vehicle traffic:** 72 hours

**Full chemical cure:** 7 days

#### Additives

**Accelerator:** Accelerator can be used at up to 10% to accelerate cure times.

#### Testing Information

Cure times completed at 25°C in a 150g container or at 200µm.

#### Maintenance

Refer to APC Clean and Care guide.



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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. 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 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 APC Epoxy Putty or APC Concrete Repair Kit.

#### Product Application

- If using more than one kit, compare the batch numbers on the lids of the packaging and ensure different batches are combined to create an even finish. Small variances in colour may occur between different batches of the product as part of the normal manufacturing process of GP Tinted Epoxy.
- Mix GP Tinted Epoxy Part A thoroughly prior to combining with GP Epoxy Hardener Part B.
- Mix 3 Parts A with 1 Part B (3:1) 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 GP Tinted Epoxy 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 Instructions documentation, located on the website.
- It is recommended that the first coat of GP Tinted Epoxy be applied with a recommended 5% of APC Thinners to ensure high penetration and adhesion to the coating substrate. Subsequent coats can be thinned, but sufficient curing time will be required to allow for the evaporation of solvent content from the product before re-coating or top coating when used as part of an All Purpose Coatings system. The recoat time is typically, 24 hours at 25°C. Apply using a brush or lint-free roller.

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### Physical Properties

<b>Solids Content</b>	100%
<b>Compressive Strength</b>	ASTM D695: 12,000 PSI
<b>Tensile Strength</b>	ASTM D638: 3,900 PSI
<b>Elongation at Break</b>	ASTM D638: 7.00%
<b>Flexural Strength</b>	ASTM D790: 7,800 PSI
<b>Shore D Hardness</b>	ASTM D142:100 ± 20%
<b>Elongation</b>	ASTM D2240: 84
<b>Bond Strength to Concrete</b>	100% concrete failure
<b>Heat Distortion Temperature</b>	ASTM D648: 50°C
<b>Volatile Organic Compounds</b>	AP-T002: very low
<b>Water Absorption</b>	ASTM D570: 0/07% (2 hour boil)
<b>Impact Resistance</b>	AS 1580.406.1: high



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### *Heavy Industry Tinted Epoxy*

#### CAUTION

- Avoid contact with skin and eyes. Use full PPE during application including but not limited to, gloves, mask and goggles.
- When used as a self-levelling floor coating, GP Tinted Epoxy will not profile irregular substrates. For the profiling of defects on horizontal surfaces, a suitable patching or repair mortar will be required.
- The mix ratio is calculated by product volume. **NOT BY PRODUCT WEIGHT**. Mixing products 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.
- Sunlight and UV radiation can cause discolouration and chalking of the surface. However, this won't affect the coating's protective functions.
- Lighter colours may appear translucent when applied as a plain coating and may require additional coats.
- All solvents, corrosives, and spills should be cleaned up as soon as possible.
- **If recoating after 72 hours since the last coat, a mechanical bond will need to be made by sanding the previous coat.**

**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.

