

RESIDENTIAL
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INDUSTRIAL
& MARINE

ART
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SHIMICOAT
SURFACE SOLUTIONS



Catalyst

Epoxy Hardener-Part B

Pack Sizes

Pack Sizes

250mL

0.5L

1L

2L

4L

5L

Description

Catalyst Epoxy Hardener speeds up the curing process of normal curing hardener down to 2Hours time. It is Part B of Epoxy Blend to be used with most Part A Epoxy products such as Premium Tinted Epoxy and Ultra Clear Epoxy.

Catalyst Epoxy Hardener is an industrial grade epoxy coating material (Part B – Curing Agent ONLY) for back to service, fast floors. Ideal solution for commercial installations where curing time is an essence and back to normal operation is crucial. The product has various applications due to its excellent mechanical, chemical, electrical and adhesion properties to most substrates. Catalyst Epoxy Hardener is a high amine content curing agent to be added to existing hardener to reduce dry times. It can easily be added to your normal Curing Agent (Premium Tinted Epoxy/ Part B), at various ratios to provide you with various curing time. Catalyst Epoxy Hardener has been developed specifically for Australian conditions using the latest epoxy technology. It provides excellent protection against weathering conditions and the splash and spillage of a wide range of chemicals. Catalyst Epoxy Hardener provides a highly durable, chalk resistant, wear and chemical resistance surface for concrete floors.

Features

- Modern, Hygiene, Functional and Economical.
- Heavy duty clear or pigmented coating for concrete and polished concrete floors.
- Highly resistant to chemical attack and pedestrian or vehicular traffic.
- Can be used in conjunction with graded aggregates to produce durable decorative floor finishes.
- Long lasting and easily maintained with good resistance to a wide range of domestic and commercial chemicals.
- Solvent free when used as a clear unpigmented coating or binder.
- Outstanding water resistance.
- Seamless, easy to clean and maintain.
- Suitable for Flake Flooring systems, see SHIMI FLAKE flooring system.
- Superior Chemical Resistant Finished surface
- Hard wearing & long lasting
- Solvent Free (Unless you apply Diluent for thickness control)
- Engineered formulation for trafficable area with high mechanical strength
- DIY Friendly, easy to apply and curable over a wide range of temperature
- Available with a wide range of Flakes for decorative concrete
- Ideally compatible for Non-Slip Flooring System.



MATERIALS



CHEMICALS



RESINS



EQUIPMENT

Coverage

Using neat for Fast Cure Floor:

1Lt is added to 6Lt of Premium Tinted Epoxy to cover over 30sqm

1Lt is added to 4Lt of Clear Epoxy to cover over 15sqm

Applications

Roller, Brush or Squeegee.

Dry Time at 25°C

Parameters	Measures
Pot Life	15 minutes at 25°C
Tack Free	Half hours
Thin Film Set	1 Hours (Min, depending on temperature and humidity)
Dry Cured	2-4 hours – Foot Traffic (depending on temperature and humidity)
Fully Cured	7 days (Vehicle Traffic)
Re-Coat	4 Hours Intervals

Clean Up

Thinner & Diluent (Blend of Solvents)

Preparations

Clean and dry surface. Ensure surface to be coated is free of all dirt, grease, oil, paint, curing agents and other contaminants. Removal of Oil Contamination by degreaser and alkaline cleaning pressure wash
Acid-wash to enhanced surface porosity and etch the surface. Ensure moisture free surface. Allow to completely dry, run Dry Test. Place a piece of plastic over a small area, tape the edges and leave for 1 hour. Remove plastic, if there is no moisture on either surface, concrete is sufficiently dry. Ideally, always consider surface grinding and removal of loose materials. Grinding is always advisable prior to application of all Shimicoat Epoxy products, to maximize adhesion. For further information, please refer to SHIMICOAT Instruction for "Surface Preparations".

Specifications

Physical & Chemical properties of Tinted Epoxy Premium 105TP.

Pot Life @25°C	15min
Colour of Blend	Available in All Australian Standard AS 2700 Colours
Specific Gravity (SG) of Blend	1.4
Low Profile Coverage (Kg/sqm)	Roller Application (200micron) - 0.2Kg of Blend per sqm
Mix Ratio	6A:1B By Volume
Maximum Temperature Surface Exposure (°C)	140
Initial Cure Time (Hours)	3-4Hours
Ultimate Cure Time (Days)	7 Days

Specific resistance properties of Catalyst Tinted Epoxy FC110, in harsh chemicals.

	Reagent	Rating
Acids	Hydrochloric Acid	B
	Sulphuric Acid	C
	Acetic Acid	B
	Nitric Acid (10% max)	C
	Phosphoric Acid (25% max)	B
Alkalis	Sodium Hydroxide	B
	Ammonium Hydroxide	A
	Potassium Hydroxide	B
	Sodium Hypochlorite (Bleach)	A
Solvents	Xylene	A
	Methyl Ethyl Ketone (MEK)	C
	Diesel	A
	Ethanol	A
	Acetone	B
	Kerosene	A
	Petrol	A
	Wine & Beer	A
Code	Resistance	Description
A	Excellent	Suitable for Long term immersion
B	Good	Suitable for Short-term immersion (Max 3 days)
C	Caution	Very short contact time is OK, spill and splash
D	Danger	Not Recommended
Indicative reference only. Tested in laboratory conditions at 25°C.		

Resistance properties of Tinted Epoxy Premium 105TP:

Heat Resistant	140°C	Alkalis	Resist Short term immersion in all alkalis.
Weather Proofing	All Epoxy Coatings may yellow with time. Weatherproof top coat may be used if required.	Salts & Brines	Resist continuous or long-term immersion in all Salts & Brine systems.
Solvents	Resistant to most hydrocarbon solvents and alcohols.	Water	Excellent resist to continuous or long term immersion in fresh & Salt Water.
Acids	Resist splash and spills in all acids.	Abrasion	Excellent when fully cured (7 Days)

Direction

Catalyst Epoxy Hardener provides installers with a great flexibility of deciding on their best curing time that's most suitable for their project. Feel free to add any dosage according to below table and graph, to obtain your ideal curing time:

Cure time 25°C	Catalyst Epoxy Hardener - 6A:1B by Vol	Premium Tinted Epoxy Part B (105B) - 3A:1B by Vol
8 Hours	0%	100%
4 Hours	50%	50%
2 Hours	100%	0%

When using with Premium Tinted Epoxy:

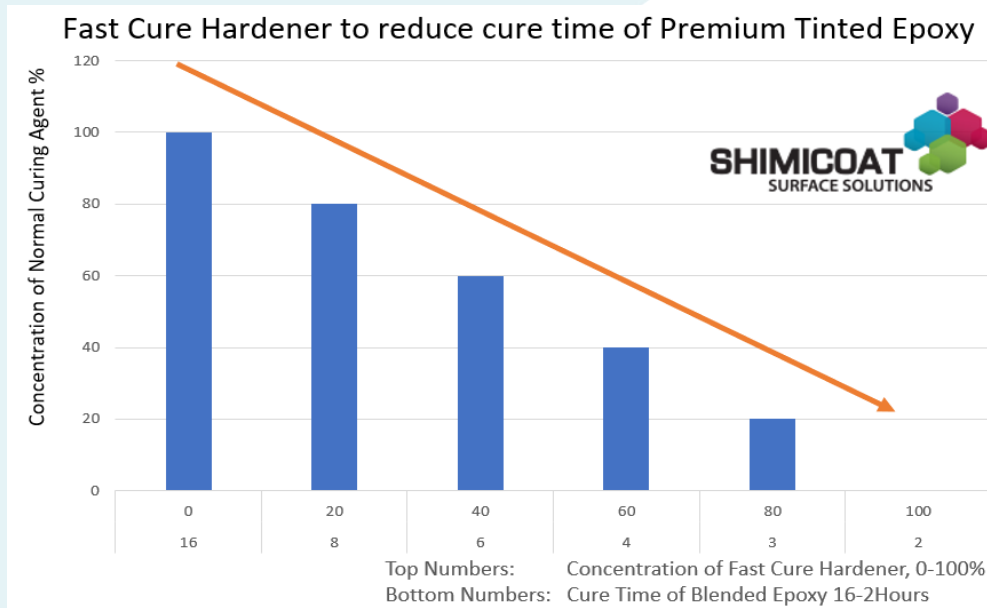
Cure time 25°C	Catalyst Epoxy Hardener - 6A:1B by Vol	Premium Tinted Epoxy Part B (105B) - 3A:1B by Vol
8 Hours	0%	100%
4 Hours / Total Vol = 7 + 4 = 11Lt	50% = 1Lt Catalyst Epoxy Hardener + 6Lt of Premium Tinted Epoxy Part A	50% = 1Lt Catalyst Epoxy Hardener + 3Lt of Premium Tinted Epoxy Part A
2 Hours	100%	0%

Important NOTES:

- Add the correct quantity of Epoxy Resin (Part A) into each hardener respectfully, 6A:1B into Catalyst Epoxy Hardener, and 3A:1B into Tinted Epoxy Hardener (105B).
- You can use Catalyst Epoxy Hardener with clear epoxy; however, we do not recommend due to yellowing. If you wish to use Catalyst Epoxy Hardener with clear epoxy; add the correct quantity of resin (Part A) respectfully.
- Equivalent Stoichiometric ratio of **Premium Tinted Epoxy Part B/Curing Agent** to **Catalyst Epoxy Hardener** is 2:1. Meaning, to replace 1Lt of normal curing agent (e.g. PT105B) you need to add 0.5Lt of Catalyst Epoxy Hardener.

2 X Normal Curing Agent (PT105B) = 1 X Catalyst Hardener

Products	Mix Ratio
Premium Tinted Epoxy PT105K (Normal Hardener/Normal Curing Agent)	3A:1B
Catalyst Tinted Epoxy FT110 (Catalyst Epoxy Hardener/Fast Curing Agent)	6A:1B



Catalyst Epoxy Hardener can be mixed at above various ratios with Part B of Premium Tinted Epoxy (Premium Curing Agent/Hardener) to be applied in many floors:

- Commercial Floors (Rapid back to service)
- Mechanical Workshops
- Factories
- Warehouses
- Food processing plants
- Chemical/pharmaceutical industry
- Power stations
- Plastics industry
- Laboratories
- Wash rooms
- Cool rooms and freezer rooms
- Exhibition halls and showrooms
- Demonstration floors and training facilities
- Loading bays and ramps
- All floors "Epoxy mortars and crack repair"

All Epoxy products yellow overtime, especially under direct sunshine. Catalyst Epoxy Hardener increases the yellowing effect of the finished surface when compared to Premium Curing Agent. Ensure you use "UVthane", UV Resistant Polyurethane topcoat to sunshield your epoxy surface.

Mixing:

Mix thoroughly for a minimum 3 minutes manual or with mechanical mixer at low speed (750rpm Max). If mixing smaller portions mix at a ratio of 6A:1B by volume. For example, to prepare 3.5Lt mix, add 500mL of Part B into 3Lt of Part A.

- Ensure surface to be coated is dry, moisture can cause blooming and delamination.
- Pot life is very short and approximately 15 minutes, work within 15min to ensure easy flow application.
- SHIMI COLOURS, SHIMI METALLIC or SHIMI GLITTERS should be first added to Part A (Resin). Mix slowly using drill mixer on low speed. Mix for a few minutes to ensure completely homogenized without lump. Pour the bend into your tray and apply directly on the surface using the roller.
- Use steady long strokes and avoid overworking the roller or pushing your roller too quickly as this may trap air bubbles in the coating.
- Do not apply if the rain is expected within 24 hours of application.
- New concrete should be allowed to cure fully (at least 28days) before application.
- Keep the pail sealed when not in use. Avoid application on hot surfaces.

Drying Times

Catalyst Tinted Epoxy FC110 cures in 3-4 hours at 25°C. High temperatures and windy conditions may speed the curing time.

Keep foot traffic off the final coat for at least 16 hours and vehicles for at least 7 days. Full hardness is achieved after 7 days.

Temp °C	Pot Life (min)	Surface Dry (Hours)	Initial Cure (Hours)	Recoat Time (Hours)	Fully Cured (Days)
10°C	15	1.5	4	4	7 Days
20°C	13	1.0	3.5	4	7 Days
30°C	12	45	3	4	7 Days

WARNING

- Heavy vehicles with hot tires may cause damage on driveway. Avoid driving over the new coated floors till completely cured (7 Days). For parking the car, place a mat under each tire during the first few weeks to ensure longevity of your new floor.
- Do not apply Catalyst Tinted Epoxy FC110, if the concrete has a patchy appearance as moisture may be present. Dry Test prior to application.
- Direct sunlight and UV radiation may result in chalking, colour variations and yellowing effect over time. UV resistance topcoat shall be used.

Storage

The products shall be stored out of direct sunlight and heat at all times. The shelf life of the product is 24 months, mix uniformly for 3 minutes prior to use.

DISCLAIMER

Material Safety Data Sheet, Technical and Environmental Data Sheet can be provided upon request.

The information provided in this document is guidance only and considering the uses of this product are beyond the seller's control, the product is sold without guarantees or warranties. Warranties and guarantees shall be governed by SHIMICOAT Standard Terms of Sale. The purchaser shall make its own tests to determine the suitability for their specific application, and Shimicoat Pty Ltd is taking no responsibility for misuse of the product. The purchaser assumes all risk of use and handling of this product. This product will be happily replaced or credited back if defective. Beyond this, Shimicoat Pty Ltd is not liable for any damages caused by this product or its use.

This information and all further technical advice are based on our present knowledge and experience.

The customer is not released from the obligation to conduct careful inspection and testing of supplied goods.