RESIDENTIAL & COMMERCIAL

INDUSTRIAL & MARINE

ART & CRAFT

SHIMICOAT
SURFACE SOLUTIONS

## Description

SHIMICOAT Epoxy Crack Repair contains Ultra Clear Epoxy Resin (100% Solid) and Super Ceramic Filler materials to make paste epoxy mortar with your ideal consistency to perfectly patch and repair the surface. The products are available in three convenient kit sizes of small, medium and large.
Ideal Kit for installers and applicators requiring fast and effective surface repair prior to coating applications. Epoxy Mortar Concrete Repair Kit provides a high MPa finish surface stronger than 50 MPa concrete. SHIMICOAT Epoxy Crack Repair is recommended where a large volume of surface preparation and concrete repair works is required. Easy to mix, Easy to apply and efficient.
Super Ceramic Filler used in Epoxy Crack Repair assists in improving rheology, reduces sag/shrinkage, improves impact resistance and is chemically inert and non-absorbent. Modern, hygienic, functional and economical surface.

## Kit Includes

### Commercial Grade Epoxy Crack Repair contains:

- Order size Super Ceramic Filler Materials
- Order size Ultra Clear Epoxy 100% Solid

| NO | Kit Size | Super Ceramic *Filler Materials* | Ultra Clear Epoxy 100% Solid Kit Size (Lt) |
|---|---|---|---|
| 1 | Small (6.5Lt) | 5Lt | 1.5Lt |
| 2 | Medium (13Lt)) | 10Lt | 3L |
| 3 | Large (26Lt) | 20Lt | 6L |

## Usage

Super Ceramic shall be added to Premixed (Part A and Part B) Ultra Clear Epoxy, twice as much as resin quantity (200% by volume). Extra Super Ceramic can be added for special applications.

## Applications

Use Trowel, Scraper or Spatula to smear over the cracked surface and fill the gap. Remove excessive and wipe off using scraper.
Pour over the surface and squeegee to spread out and level.

## Dry Time at 25°C

| | |
|---|---|
| ***Pot Life:*** | 45 minutes at 25°C |
| ***Tack Free:*** | 2-3 hours |
| ***Thin Film Set:*** | 8 Hours (Min, depending on temperature and humidity) |
| ***Deep Cast Set:*** | 24 Hours (Min, depending on temperature and humidity) |
| ***Dry Cured:*** | 12-16 hours – Foot Traffic (depending on temperature and humidity) |
| ***Fully Cured:*** | 7 days (Vehicle Traffic) |
| ***Re-Coat:*** | Over night |

## Clean Up

EpoThin - 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”

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| Kit Size | Kit Contains |
|---|---|
| Small Kit | 5Lt (2Kg) Super Ceramic Filler Materials with 1.5Lt of Ultra Clear Epoxy 100% Solid. |
| Medium Kit | 10Lt (4Kg) Super Ceramic Filler Materials with 3Lt of Ultra Clear Epoxy 100% Solid. |
| Large Kit | 20Lt (8Kg) Super Ceramic Filler Materials with 6Lt of Ultra Clear Epoxy 100% Solid. |

Modern, hygienic, functional and economical surface.

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## Features

Epoxy Crack Repair Kit comprises of Clear Resin 100% Solid and reinforcing body structure of Super Ceramic Filler materials to provide the hardest surface in Civil Construction industries. Selected Features of SHIMICOAT Epoxy Crack Repair:

- Contains highly advanced Super Ceramic Filler Materials
- Maximum reinforcement Epoxy structure
- Light and Easy to mix, use and apply
- High compressive strength
- Thermal stability
- Longevity over 20 years
- Ideal Rheology for all applications
- No Sagging as it is light
- Improved Fire Rating performance
- Modern, Hygiene, Functional and Economical.
- Highly resistant to chemical attack and pedestrian or vehicular traffic.
- DIY Friendly, easy to apply and curable over a wide range of temperature.

## Specifications

Physical & Chemical properties of Epoxy Crack Repair:

| | |
|---|---|
| **Pot Life @25°C** | 45min |
| **Colour of Blend** | Resin is Ultra Clear and transparent<br>Blended with Super Ceramic is Light Grey (Super Ceramic Colour) |
| **Consistency and Flow** | Addition of Super Ceramic Filler improves consistency to easy to apply paste |
| **Touch Dry** | *4 Hours* |
| **Initial Cure Time** | *8-20hours (depending on temperature)* |
| **Ultimate Cure Time (Days)** | 7 Days |
| **MPa of Epoxy Mortar** | >50 |
| **Maximum Temperature Exposure (°C)** | 140 |

Specific resistance properties of Epoxy Crack Repair in harsh chemicals:

| Media | Reagent | Rating |
|---|---|---|
| Acids | Hydrochloric Acid | B |
| | Sulphuric Acid | C |
| | Acetic Acid | B |



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| | | |
|---|---|---|
| | Nitric Acid (10% max) | |
| | 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 Epoxy Crack Repair

| | | | |
|---|---|---|---|
| **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

Mix Twice as much as resin quantity used (200% by volume)

For example, if using Ultra Clear Epoxy, add 1.0Lt of Part B (Curing Agent) into 2.5Lt of Part A (Resin) Mix for 2-3minutes and add 6.0Lt (2.4Kg) of Super Ceramic Filler. If necessary, add EpoSeal Diluent up to 5% to smoothen the paste.

## Mixing:

Mix thoroughly for a minimum 3 minutes manual or with mechanical mixer at low speed (750rmp Max) to ensure uniformity of the product.

## Helpful Hints:

- Ensure surface to be coated is dry. Moisture can cause blooming and delamination.
- Pot life is approximately 45 minutes, work within 30min to ensure ideal rheological properties and easy flow application.
- 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.
- Not recommended for use below 10°C or above 35°C.
- New concrete should be allowed to cure fully (at least 20days) before application.
- Keep the containers (Pail or Cans) sealed when not in use.
- Avoid application on hot surface.

## Drying Times

SHIMICOAT Epoxy Crack Repair dries in 8-20 hours. High temperatures and windy conditions may speed up the curing time.

Keep foot traffic off 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 | 45 | 12 | 24 | 24 | 7 Days |
| 20°C | 40 | 10 | 18 | 18 | 7 Days |
| 30°C | 35 | 8 | 16 | 16 | 7 Days |

## WARNING

- Heavy vehicles with hot tires may cause damage on driveway. Avoid driving over the newly repaired floors till completely cured (7 Days).
- Do not apply Epoxy Crack Repair, if the concrete has a patchy appearance as moisture may be present. Dry Test prior to application, commence application when fully dry and moisture free.

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