RESIDENTIAL & COMMERCIAL

INDUSTRIAL & MARINE

ART & CRAFT

SHIMICOAT
SURFACE SOLUTIONS

Carbosil Patch & Repair TINTED
Complete Kit

Kit Sizes

Mini

Product Description	Size	Code	Quantity
Carbosil Filler Materials	2Lt	CS	1
Premium Tinted Epoxy 100% Solid	2Lt	PT	1

Small

Product Description	Size	Code	Quantity
Carbosil Filler Materials	5Lt	CS	1
Ultra-Clear Epoxy 100% Solid	4Lt	PT	1

Medium

Product Description	Size	Code	Quantity
Carbosil Filler Materials	10Lt	CS	1
Ultra-Clear Epoxy 100% Solid	12Lt	PT	1

Extra Large

Product Description	Size	Code	Quantity
Carbosil Filler Materials	20Lt	CS	1
Ultra-Clear Epoxy 100% Solid	20Lt	PT	1

Kit Includes

Commercial Grade Carbosil Patch & Repair contains:

- Order size Carbosil Filler Materials
- Order size Premium Tinted Epoxy 100% Solid

Kit Size	Carbosil *Filler Materials*	Premium Tinted Epoxy 100% Solid Kit Size (Lt)
Mini (4Lt)	2Lt	2Lt
Small (9Lt)	5Lt	4Lt
Medium (22Lt))	10Lt	12Lt
Large (40Lt)	20Lt	20Lt

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Description

Carbosil or known as Aerosil is Viscosifying Fumed Silica, Resin Thickener or Rheology Modifier used to thicken epoxy resin to achieve a smooth, non-sagging, high-strength mixture for coating, structural bonding, filleting and filling. CARBOSIL is engineered to provide ideal thickening properties with added thixotropic and sheer thinning properties to make it easy to trowel, screed and apply to any surface.

Carbosil fumed silica is widely used to provide thickening and enhance anti-settling properties in resin, flow and gel coats. Can be used for reinforcement and gluing/adhesive applications. The product offers an excellent balance of thickening efficiency and dispersibility.

Usage

Hairline Crack Repair: Mix Premium Tinted Epoxy A&B, add to your desired Viscosity:
Screeding: Same quantity as resin used (100% by volume):

Consistency	% CARBOSIL to Epoxy Blend	APPLICATIONS
Slurry	5%	Superfine Hairline Cracks
Low Vis	10%	Screeding
Mid Vis	20%	Moderate Cracks
High Vis	50%	Large Dents

Applications

Use any of SHIMICOAT Clear Epoxy Resins, mix at correct ratios and add Carbosil to your desired viscosity. Mix for 2-3 minutes and apply to your surface within curing time-frame of Epoxy product used.
For example, if using Premium Tinted Epoxy, add 100mL of Part B (Curing Agent) into 200mL of Part A (Resin), mix for 2-3minutes and add your desired quantity of CARBOSIL. Use EpoDil "Epoxy Diluent & Thinner Solvent" to wipe and clean your tools and finish surfaces. 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".

Description

SHIMICOAT Carbosil Patch & Repair contains Premium Tinted Epoxy Resin (100% Solid) and Carbosil 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 Carbosil Patch & Repair is recommended where a large volume of surface preparation and concrete repair works is required. Easy to mix, Easy to apply and efficient. Carbosil Filler used in Carbosil Patch & Repair assists in improving rheology, reduces sag/shrinkage, improves impact resistance and is chemically inert and non-absorbent.

Kit Size	Kit Contains
Mini Kit	2Lt (0.8Kg) Carbosil Filler Materials with 2L of Premium Tinted Epoxy 100% Solid.
Small Kit	5Lt (2Kg) Carbosil Filler Materials with 4Lt of Premium Tinted Epoxy 100% Solid.
Medium Kit	10Lt (4Kg) Carbosil Filler Materials with 12Lt of Premium Tinted Epoxy 100% Solid.
Large Kit	20Lt (8Kg) Carbosil Filler Materials with 20Lt of Premium Tinted Epoxy 100% Solid.

Modern, hygienic, functional and economical surface.

Features

Carbosil can be used with any of SHIMICOAT Epoxy, Resin or Sealer products offering the following features and benefits:

Features	Benefits
Cost reduction	Over 7% savings on resin, due to optimized surface area to volume ratio.
Super Low Density	Blended products are lighter and more efficient, easier to apply and non-sagging.
Improved Rheology	Less than 50micron in size engineered fume structure with thixotropic sheer thinning properties, offering massive surface contact, easy to roll-on and easy to flow.
Dual Applications	Crack Repair & *Filler Materials* *Screeding, Leveling and Surface Maintenance*
Variety	Available in many colors to match your décor

In addition to above, Carbosil offers the following benefits:

- Available in Many Colours
- Non-Sagging Filler Materials,
- Engineered for high compression strength and high-pressure resistance
- Improved wear and abrasion resistance
- Enhanced acoustic properties owing to its capacity to absorb sound and vibration within the Epoxy matrix
- Improved Fire Rating performance due to its non-combustible nature and super high temperature melting point materials used within the body of Epoxy
- Colour-fast and superior gloss retention
- Ideally bonds to Epoxy
- Highly resistant to chemical attack and pedestrian or vehicular traffic.
- Seamless, easy to clean and maintain.
- Superior Chemical Resistant Finished surface
- Engineered formulation for trafficable area with high mechanical strength
- DIY Friendly, easy to apply and compatible with many resin systems
- Engineered for high compressive strength
- Enhances impact resistance and surface durability.
- Improve ware and abrasion resistant of finished surface.
- Inert, Non-Reactive non-absorbent with all resins.
- Ideally suitable with single or dual pack resin systems
- Dual Applications:
    - **Crack Repair & *Filler Materials***
    - ***Screeding, Leveling and Surface Maintenance***
- easy to use and apply
- Chemical Resistant (Acid, Alkali and Solvents)
- Acoustic & Noise Insulation
- Easy match to any décor “off-white colour”
- Colour and gloss retention
- Environmentally friendly containing inert inorganic composition
- Modern, Hygiene, Functional and Economical.
- Economical

Specifications

Physical & Chemical properties of Carbosil Patch & Repair:

Pot Life @25°C	45min
Colour of Blend	Resin is tinted in your choice of colour Blended with white powder Carbosil
Consistency and Flow	Addition of Carbosil improves consistency “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 Carbosil Patch & Repair in harsh chemicals:

Media	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 Carbosil Patch & 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 Premium Tinted Epoxy, add 1Lt of Part B (Curing Agent) into 3Lt of Part A (Resin), mix for 2-3minutes and add 6.0Lt (2.4Kg) of Carbosil Filler. If necessary, add EpoDil Epoxy Diluent at a rate of up to 5% to lower viscosity and 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 Carbosil Patch & 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 Carbosil Patch & 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.
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.