

CARBOSIL

Filler & Resin Viscosifier

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.

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 optimised 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

In addition to above, Carbosil offers the following benefits:

- 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

Usage

Hairline Crack Repair: Mix Ultra Clear 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

Application

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 Ultra Clear Epoxy, add 1.0Lt of Part B (Curing Agent) into 2.0Lt of Part A (Resin), mix for 2-3minutes and add your desired quantity of CARBOSIL. Use EpoDil "Epoxy Diluent & Thinner" to wipe and clean your tools and finish surfaces.

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".

The product can be used as filler materials with any of SHIMICOAT Epoxy products (Clear or Tinted) to form an easy flow and easy apply epoxy mortar, ideally suitable for crack and hole repair prior to coating. CARBOSIL Epoxy paste is non-sagging, engineered for high strength for both horizontal and vertical applications.

Specifications

Carbosil is Microsphere Engineered Fumed Silica particles with below properties:

Parameter	Value
Appearance	Light Silica Fume
Colour	White to Off-White
Geometry	Engineered Random Shapes
Particle Size	1-50 Micron
Bulk Density	<100g/Lt

Direction

Carbosil has two distinctive applications:

NO	Application	Usage - Volume	Direction
1	Hairline Crack Repair	5-20%	Trawl and fill the crack. Let it cure over-night (8-16 Hours depending on temperature) Sand and Clear Up, to get the surface ready for Coating Application.
2	Screeding	10-50%	Screed over the entire floor. Smooth off using trawl or squeegee. Let it cure over night (8-16 Hours depending on temperature).

Mixing:

- Prepare Epoxy mix by adding appropriate quantity of Curing Agent (Part B) into the resin (part B).
- Mix thoroughly for 2-3 minutes manual or with mechanical mixer at low speed (750rpm Max).
- Add the correct quantity of CARBOSIL materials (depending on your application) and mix for extra 1-2min to ensure complete suspension of particles into the epoxy matrix.
- Apply to the surface and use well within curing time.

Crack Repair:

Screeding:

For further information please contact our technical team at SHIMICOAT Pty Ltd.

WARNING

Keep out of reach of children
Read Safety Material Data Sheet (MSDS) of the product prior to use.

Storage

The products shall be stored out of direct sunlight and heat at all times. The shelf life of the product is over 24 months.

Pack Sizes

Pack Sizes	
1Lt	130gr
2Lt	260gr
4Lt	520gr
10Lt	1.3Kg
20Lt	2.6Kg

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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