RESIDENTIAL & COMMERCIAL

INDUSTRIAL & MARINE

ART & CRAFT

SHIMICOAT
SURFACE SOLUTIONS

Epoxy Mortar

Complete Kit

Kit Sizes

Small

Product Description	Size	Code	Quantity
Dry Silica Sand	20Kg	SS	1
Ultra-Clear Epoxy Resin	1.5Lt	UC	1

Medium

Product Description	Size	Code	Quantity
Dry Silica Sand	20Kg	SS	2
Ultra-Clear Epoxy Resin	3Lt	UC	1

Large

Product Description	Size	Code	Quantity
Dry Silica Sand	20Kg	SS	4
Ultra-Clear Epoxy Resin	6Lt	UC	1

Description

SHIMICOAT Epoxy Mortar Kit contains Clear Epoxy Resin (100% Solid) and Silica Sand to make Epoxy Mortar with ideal consistency for Mortar applications. The products are available in three convenient kit sizes of small, medium and large.

Ideal Kit for installers and applicators requiring fast, professional and compliance Mortar, especially for commercial applications. Epoxy Mortar provides a high MPa finish surface stronger than 50 MPa concrete. SHIMICOAT Epoxy Mortar is recommended for commercial kitchens, food processing plants, factories and warehouses where easy and fast clean-up is crucial. Easy to mix, easy to apply and achieve an easy to clean floor. Modern, hygienic, functional and economical surface.

Kit Size	Kit Contains
Small Kit	One bag of 20Kg Silica Sand and 1.5Lt of Clear Epoxy Resin (100% Solid).
Medium Kit	Two bags of 20Kg Silica Sand and 3Lt of Clear Epoxy Resin (100% Solid).
Large Kit	Four bags of 20Kg Silica Sand and 6Lt of Clear Epoxy Resin (100% Solid).

SHIMICOAT Silica Sand is a moisture free product with ideal particle size to ensure a professional Mortar system.

Kit Sizes	Dry Silica Sand - 20Kg Bag	Clear Epoxy Resin - 100% Solid (Lt)
Small (21.5Kg)	1	1.5Lt
Medium (43Kg)	2	3L
Large (86Kg)	4	6L

Modern, hygienic, functional and economical surface.

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Features

Epoxy Mortar Kit comprises of Clear Epoxy Resin (100% Solid) and reinforcing Silica Sand to provide hard and durable Mortar structure. Selected Features of SHIMICOAT Epoxy Mortar Kit:

- Contains quality Clear Epoxy Resin (100% Solid)
- Contains dry and ideal particle size silica sand for Mortar applications
- Provide high MPa of over 50
- Maximum reinforcement Epoxy structure
- Easy to mix and apply to provide easy clean floor
- Thermal stability
- Longevity over 20 years
- No Sagging
- Modern, Hygiene, Functional and Economical.
- DIY Friendly, easy to apply and curable over a wide range of temperature.

Kits Include

Commercial Grade Epoxy Mortar contains:

- Order size Silica Sand
- Order size Clear Epoxy Resin 100% Solid

Usage

EPOXY MORTAR

- Commercial kitchens
- Food processing plants
- Amenities
- Laundries
- Factories and warehouses
- Easy wash and flush floors

Applications

Mix 1.5Lt Clear Epoxy Resin (2A:1B), One liter of Part A (Epoxy Resin) and half a liter of Part B (Curing Agent).
Add 20Kg bag of Silica Sand into the resin and mix to achieve uniform epoxy mortar.
Use Trowel, Scraper or Spatula to apply.

Coverage

Kit Sizes	Kit Contains	Volume Fill
Small (21.5Kg)	One bag of 20Kg Silica Sand and 1.5Lt of Clear Epoxy Resin (100% Solid)	20Lt
Medium (43Kg)	Two bags of 20Kg Silica Sand and 3Lt of Clear Epoxy Resin (100% Solid)	40Lt
Large (86Kg)	Four bags of 20Kg Silica Sand and 6Lt of Clear Epoxy Resin (100% Solid)	80Lt

Dry Time at 25°C

Pot Life:	45 minutes at 25°C
Tack Free:	2-3 hours
Dry Cured:	8-16 hours
Fully Cured:	7 days – Ultimate Hardness
Coating Over Mortar:	Immediate

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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".

Specifications

Physical & Chemical properties of Premium Epoxy Mortar:

Pot Life @25°C	45min
Colour of Blend	Resin is Ultra Clear and transparent Blended with Creamy Silica Sand
Packing Density of Silica Sand (Kg/Lt)	1.4 Kg/Lt– Each Kg is 0.7Lt (20Kg is 14.3Lt)
Consistency and Flow	Non-Sagging Epoxy Mortar
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 Premium Epoxy Mortar 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 Premium Epoxy Mortar:

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

1. Mix 1.5Lt of Clear Epoxy 100% solid by adding 0.5Lt of Hardener (Part B) in 1.0Lt of Epoxy Resin 2A:1B, slowly add a full bag of 20Kg of Silica Sand into the Epoxy blend while mixing with Electric Epoxy Mortar mixer.
2. Continue mixing till all 20Kg Silica Sand into 1.5Lt Epoxy blend and uniform Epoxy Mortar blend is achieved. Test the blend to ensure it is non-sagging and suitable for professional Mortar. Drill a hole, turn off the mixer and pull out the drill bit (see image), a hole should be formed without collapse (see image).
3. The Epoxy Mortar is ready for application.
4. Prepare small quantity of Clear Epoxy Resin (2A:1B), using a small brush wet the corner, under the epoxy mortar zone, both wall and floor.
5. Using spatula, scoop or similar tool, place epoxy mortar on the corner over the wet epoxy surface.
6. Using the Mortar tool trowel epoxy mortar into the corner and spread evenly.
7. Using a sponge wetted with Xylene, wipe off and clean up the surface.
8. Pay particular attention to both ends (wall & floor) to smooth off nicely.

The Mortar application is now complete. Ideally, we recommend to cover it with Epoxy or other coating materials when you apply surface coating to the entire floor.

Mixing Epoxy Mortar

Remember, you can use same product and same procedure for filling large gaps and cracks on floors. Packing density of Silica Sand is 1.4kg/Lt, so each Kg is 0.7Lt and 20Kg is 14.3Lt. When mixed with Epoxy, it produces 15.8Lt to fill.
For small gaps and cracks, or for screeding applications, we recommend use of Super Ceramic as it is lighter and much easier to trowel and apply with better surface finish.
End of Procedure.

Hole Holding Test – Non-Sagging Epoxy

Mixing:

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

Epoxy Silica Sand Mortar for large fill

Drying Times

SHIMICOAT Epoxy Mortar Mortar dries in 8-20 hours depending on atmospheric temperature. High temperatures and windy conditions may speed up the curing time. Complete curing process and 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

- 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.
- For outdoor Mortar, DO NOT apply, if rain is expected within 24 hours of application.
- Not recommended for subzero or above 40°C Mortar.
- New concrete should be allowed to cure fully (at least 20days) before Mortar.
- Keep the containers (Pail or Cans) sealed when not in use.
- Avoid application on hot surfaces.
- Do not apply Premium Epoxy Mortar, 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.