



STERLING[®] TechnoWrap CarboRez 1100

Two-component normal-setting, Thixotropic epoxy resin adhesive
Mortar for bonding concrete surfaces and structural elements.

Description:

TechnoWrap CarboRez 1100 is a two-component solvent-free epoxy resin thixotropic normal setting adhesive mortar containing specialized graded fillers and thixotropic additives. **TechnoWrap CarboRez 1100** is designed to bond and fill a wide variety of building and construction materials for Levelling concrete, reinforced concrete or masonry surfaces before applying **TechnoFix® CarboRez Composite Structural strengthening system**.

TechnoWrap CarboRez 1100 provides a high bond for the other system components of the **TechnoFix® CarboRez structural strengthening system**.

Application Includes:

TechnoWrap CarboRez 1100 is used as bonding adhesive for bonding structural reinforcement **TechnoFix® CarboRez composite structural strengthening system**.

Features & Benefits:

- High strength
- Non - slump
- High bond strength
- Chemical resistant
- Impact Resistant
- Non-shrink
- High thixotropy.
- High reactivity.
- High mechanical resistance.

Storage & Shelf Life:

TechnoWrap CarboRez 1100 has a shelf life of 24 months if kept in dry store in its original packaging and storage @ 5°C to 30°C. Protect from freezing in shipment and storage. High temperature and humidity storage may reduce this period.

Packaging:

TechnoWrap CarboRez 1100 is supplied in 15 Kg, 20 Kg & 30 kg pre-weighted kit size. Packaging size may vary subject to local regulations and requirements.

Coverage:

Approximately 1.55 kg/m² per mm of thickness.

* The consumption rates of dry powder are based on lab trials and might vary subject to variation of subfloor level and surface regularity. The reverse profile of the used ceramic and the surface structure of the substrate to be covered are also important factors, besides the tile size, for the consumption of mortar.

Application Instructions:

Substrate Moisture Content-When applied to mat moisture concrete, brush the adhesive well into substrate

Substrate Preparation:

Substrate should be fully cured, clean, sound, and dry. Any damaged areas, spalled areas, delaminated areas, or areas with corrosion damage must be repaired prior to applying the **TechnoWrap CarboRez 1100** system. Concrete substrates should be fully cured (at least 28 days old).

Surface Preparation:

Prior to completing surface preparation, ensure that all concrete repairs have been properly applied and cured per ICRI guidelines. Ensure that all substrates are fully cured, structurally sound, stable, clean and free of dust, oil, grease, paint, tar, wax, sealers, curing compounds, form release agents, primers, laitance, loose particles, and any foreign substance or debris that could reduce or impair adhesion.

All sharp edges that may be found on rectangular beams and columns must be ground smooth and flush, with a bending radius (bullnose) of not less than 3/4" (19 mm) on all corners. For concrete and masonry substrates, mechanically prepare the substrate to provide a proper surface profile, as determined by the engineer in charge.

The surface profile typically should be a minimum of the International Concrete Repair Institute (ICRI) concrete surface profile (CSP) #3 to #5. In all cases, it is the responsibility of the engineer in charge to assess and specify the surface profile required to ensure system performance.

For steel substrates, achieve a minimum 3-mil profile by abrasively blasting to white metal per the Society for Protective Coatings (SSPC) Spec. SP-5.89 or NACE No. 1. 6.

Seal any surface cracks with *STIPL's epoxy injection products, such as TechnoSeal® EP LV Grout or TechnoFix® Epomast InjectoSeal 2K. Treat the substrate with **Sterling® TechnoWrap EP LV** before applying **TechnoWrap CarboRez 1100**.

Mixing

The two components of **TechnoWrap CarboRez 1100** must be mixed together. Pour component B into component A and mix with a slow speed drill fitted with a stirrer until the resin is completely homogeneous. The products come already pre-dosed therefore do not use partial quantities to avoid the risk of accidental ratio errors that could prevent **TechnoWrap CarboRez 1100** from hardening.

Application

TechnoWrap CarboRez 1100 can be applied on concrete, stone, brick or metal with a flat trowel after the substrate has been primed with **Sterling® TechnoWrap EP LV**. In order to obtain good levelling, it is recommended to let the product penetrate well into particularly uneven areas. Apply, with a notched trowel, approximately a 1 mm layer of **TechnoWrap CarboRez 1100**, depending on the temperature, over the still fresh **Sterling® TechnoWrap EP LV**. Use a flat trowel to completely level even the most uneven parts of the surface.

Cleaning:

Tools and containers may be cleaned using **TechnoFix® CleanZolPlus** when the adhesive is still fresh. The hardened adhesive can be removed from tools mechanically.

Fire:

TechnoWrap CarboRez 1100 is nonflammable. **TechnoFix® CleanZolPlus** is flammable. Keep away from sources of ignition. No smoking in the event of fire extinguish with CO₂ or foam. Do not use a water jet.

Health & Safety Instructions:

Sterling® ThermoCrete™ Plus should not come in contact with the skin and eyes, or be swallowed. Wear suitable protective clothing, gloves and eye protection. The use of barrier creams provide additional skin protection. In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed, seek medical attention immediately- do not induce vomiting. Protect your health while working with this material, always use safety goggles, gloves and safety clothing. When handling hazardous materials or pressurized materials, or during any application that may result in spills, splashes or airborne particles, a full face shield is strongly recommended. Protect yourself and others on the jobsite.

Consider property in proximity of the application area to prevent loss or damage. Protect your jobsite from unauthorized persons. Store all materials and equipment safely and out of reach of children and animals.

Observe container labels, SDS, applicable laws and regulations and all instructions before using the product and equipment. In case one of the components comes in contact with the skin, wash thoroughly with soap and water. Provide adequate ventilation in volume and pattern in working area.

Additional Information: Techno Builders Solutions® By Sterling Technotrade India Pvt.Ltd -The Specialist Construction Chemicals Company® range of associated products includes high performance concrete Admixtures, Adhesives, Protective Coatings, Concrete Repairs, Industrial Flooring, Grouts & Anchors, Joint Sealants, Surface Treatments, curing compounds, repair mortars, release agents, Grinding Aids & Waterproofing.

*Separate datasheet are available on these products.

Use the same product to fill and round the corners in order to create a profile with a bending radius not less than 2 cm. **TechnoWrap CarboRez 1100** must be applied within their pot-life, therefore timing is vital in order to use the whole pack within the given time. The **TechnoFix® CarboRez composite** structural strengthening system must be applied over the still fresh **TechnoWrap CarboRez 1100**.

Typical Properties at 20°C and 40% relative humidity

Compressive Strength (According to ASTM C-579) @ 30°C.	45-55 MPa @1day 50-60 MPa @ 3day	55-65MPa @ 7day 65-75 MPa @ 14 days
Slant shear Bond Strength (According to ASTM C 882)	>10MPa (Concrete Failure)	
Pot Life	>1 hr @20°C. 50 minutes @30°C.	30 minutes @40°C. 20 minutes @50°C.
Recoat time	8 hours @30° C.	6 hours @@40°C.
Bond Strength	>2MPa (Concrete Failure)	
Setting Time	12 hours @@30°C.	
Tensile strength	7-8 MPa @ 3day 8-10 MPa @ 7 days	

Note: Results performed in the laboratory at 20°C and 40% RH, under controllable conditions. These values may vary depending on the application, climatology, or substrate conditions.

Application Conditions / Limitations

Substrate Temperature	+5°C min /+30°C max
Ambient Temperature	+5°C min/ +30°C max
Material Temperature	TechnoWrap CarboRez 1100 must be kept at a temperature of between +5°C and +30°C.
Dew Point	Beware of condensation! Substrate temperature during application must be at least 3°C above dew point.

Disclaimer: The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests & take trials to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, quality of other materials used and the on-site workmanship are factors beyond our control, there are no expressed or implied guarantee / warranty as to the results obtained. The company does not assume any liability or consequential damage for unsatisfactory results, arising from the use of our products.

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