



STERLING® TechnoBond IntraCoat

Water-based, Acrylic emulsion cement modifier
And concrete Bonding Agent.

Description:

Sterling® TechnoBond IntraCoat is a modified acrylic emulsion specially designed for use as a bonding agent between new and hardened concrete. It is also designed for use for modifying Portland cement compositions. Cement mortars modified with Sterling® TechnoBond IntraCoat are hard, tough, and durable. It offers superior tensile, flexural, impact strengths and typically show greater adhesion.

Sterling® TechnoBond IntraCoat is resistant to hydrolysis and can therefore be used for external applications. It is the recommended primer for the Techno Builders Solutions® TechFin®, TechnoCem™ and TechFlow® range of cementitious repair system.

Application Includes:

Most common uses for Sterling® TechnoBond IntraCoat are patching and resurfacing, spray and fill coats, repairing precast building panels and beams, industrial flooring, and highway and bridge deck repairs. Sterling® TechnoBond IntraCoat is ideal for topping, leveling, patching, and dressing of concrete and masonry. As a bonding agent, it improves the adhesion of concrete or mortars. Mortars modified with Sterling® TechnoBond IntraCoat provide excellent adhesion to a variety of surfaces, including concrete and masonry. The result is a more attractive, durable, uniform concrete finish, which costs far less than polishing or rubbing. Sterling® TechnoBond IntraCoat is also ideal for use as an interface or integral bonding agent in bonding slurries, topping mixtures, finishing, and mortar mixes.

Features & Benefits:

- Acrylic polymer significantly improves adhesion, cohesion, tensile, compressive, and flexural strengths of cement-based materials in compared to the reference mix mortar.
- Excellent chemical and UV resistance promotes long-lasting repairs.
- Improves freeze/thaw stability of Portland cement-based materials for durability in cold climates.
- Retains stability when exposed to water for long term performance of repairs.
- Adhesion strength to the base concrete surface is distinctly improved
- Excellent bond to stone work plaster.
- Compatible with all common hydraulic cements.
- Economical to use.

Storage & Shelf Life:

12 months from the date of manufacturing when stored in unopened, original sealed and dry condition at a temperature range from +10°C to 30°C.

Packaging:

Sterling® TechnoBond IntraCoat available in 30 kg container.

Application Instructions:

Surface Preparation

The object of the surface preparation is to achieve a clean sound surface with a good mechanical key. All substrates should be cleaned and free of dust, plaster, oil, paint, grease, corrosion deposits, and any other deleterious substances. Laitance should be removed by mechanical means. Oil or greasy deposits should be removed by suitable means. All surfaces so treated should be thoroughly washed with clean water. Smooth substrates must be mechanically roughened e.g. by scrubbing, needle gun or grit/ sand blasting to provide a mechanical key.

Damaged Concrete repairs:

Any reinforcing steel in the repair area should be exposed around its full circumference and cleaned to remove all loose scale and corrosion deposits (**Recommended to use TechnoCoat® RR100 -Rust Remover TechnoCoat® RC- Rust Converter**) and then primed with **TechnoCoat® ZR Special**

Priming:

Immediately before priming, the concrete substrate should be thoroughly dampened with water and any excess being brushed off. Scrub **Sterling® TechnoBond IntraCoat** into the substrate. Avoid puddling of the emulsion. The repair mortar/topping should be applied whilst the primer is still tacky.

The bond coat becomes tacky in about 2 minutes and best results are achieved if the mortar is applied within the next 5-10 min In case of **Sterling® TechnoBond IntraCoat** slurry coat (1 volume of **Sterling® TechnoBond IntraCoat** + 1.5 volume of water + 1.5 volume of cement), best results are achieved, if mortar is applied within 5 minutes of application of bond coat.

Typical Mix designs to modify mortars 1:3 (1 cement: 3 Zone 2 sand using Sterling® TechnoBond IntraCoat.

OPC	50 kg
Zone 2 sand	150 kg
Sterling® TechnoBond IntraCoat	10 Kg
Water	Add sufficient water to give required consistency
Note: Trials are recommended to optimize mix designs. 1:4 cement sand mortars can also be used with same dosage of Sterling® TechnoBond IntraCoat	

Typical Properties at 25°C

Appearance	Liquid Milky white
Specific gravity	1.025 to 1.04 g/cc
Chloride Content	Nil – As per B.S – 5075 (Part – 1)

Coverage:

As a bonding agent: approximate 4- 5 m²/kg depending on porosity.

Limitations:

As a bonding agent Sterling® TechnoBond IntraCoat may exhibit less overlay time at higher temperature. In such cases as overlay mortar shall not be applied when Sterling® TechnoBond IntraCoat is totally dry. Sterling® TechnoBond IntraCoat when used as bonding agent cannot act as a barrier coat against ingress of chloride ions from the substrate.

Health & Safety Instructions:

Sterling® TechnoBond IntraCoat is non-toxic but ingestion is to avoid. If contact with eyes occurs, wash well immediately with water and seek medical advice. 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.

*Further protection: emergency showers and eyewash stations. Get immediate medical attention as needed

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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Sulphate Content	< 0.1 %
Improvements in mechanical properties of a 3:1 sand/cement mortar using Sterling® TechnoBond IntraCoat.	
Compressive strength (N/mm ²) 28 days	40.0
Tensile strength @ 28days	4.5 N/mm ²
Flexural strength @ 28 days	10.5 N/mm ²

Specification Clauses

As a bonding agent:

The bonding agent shall be Sterling® TechnoBond IntraCoat, an acrylic based emulsified solution containing a minimum of 43% solids and compatible with cementitious materials. The bonding agent shall provide adequate bond strength when directly applied on concrete and also mixed with neat cement.

As a mortar modifier:

The mortar modifier shall be Sterling® TechnoBond IntraCoat, an acrylic emulsified cement modifier which provides good bond with concrete /masonry and improves the flexural strength, tensile strength properties of the mortar when added in the specified quantities. It shall be compatible with all common hydraulic cements

General Recommendations:

For repairs:

Prepare surfaces thoroughly as previously recommended Cut back edges to avoid feather edging. Prime all surfaces including edges, using Sterling® TechnoBond IntraCoat. All applications shall be wet on wet. For best results Sterling® TechnoBond IntraCoat should be allowed to become tacky. If the bonding agent is allowed to dry for more than 15 minutes at 30°C initial 'grab' to the repair mortar will be reduced. Therefore, the use of temporary shuttering is recommended. Water content of the mortar should be kept to the minimum necessary. For consistent results, the use of clean, dry sand is recommended. Where the use of wet sand is unavoidable, the quality of water to be added must be reduced. Cure mortars using Sterling® TechnoBond IntraCoat to prevent rapid drying out. Protect uncured mortar from frost and rain. Do not retemper mortar after initial set. Minimum application temperature Sterling® TechnoBond IntraCoat is 10°C, but the mortar should not be applied if the temperature is expected to fall.

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.

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