

Technical Data Sheet - TDS



CHEMCON

RocBuild HS

Shrinkage compensated, High Strength, Fiber Reinforced, Structural Repair mortar

PRODUCT DESCRIPTION

RocBuild HS is a single pack, polymer modified, fibre reinforced cementitious repair mortar. **RocBuild HS** is a high strength reinstatement mortar with shrinkage compensating properties. **RocBuild HS** consists of a blend of Portland Cement, graded silica sands, polymers, non-asbestos fibres and shrinkage control agents. Drying shrinkage is controlled to ensure complete void filling and therefore effective load transfer. **RocBuild HS** is a quality controlled repair mortar that exhibits low slump characteristics coupled with remarkable ease of application. The presence of a copolymer ensures an excellent bond to most surfaces and improves such properties as impermeability, flexural and tensile strength. Cellulose fibres improve water retention to aid complete hydration of the cement.

FIELDS OF APPLICATION

As part of a repair program for reinstatement of concrete suffering from chloride or carbonation attack. For filling tie rod holes and voids. For repairs to damaged, debonded, weak or spalled concrete. Filling and re-profiling honeycombs in new and old construction. The thixotropic nature of the product enables easy high build trowel application for the repair of voids and the rendering and re-profiling of both vertical and horizontal surfaces. The product is supplied as a single component system requiring only the addition of clean water.

FIELDS OF APPLICATION

For structural repair programs reinstating chloride attacked or structurally damaged concrete. Suitable for repairs in marine environments where gun applied mortar is required.

ADVANTAGES

- ▶ High strength and related physical properties.
- ▶ Cellulose fibres improve water retention.
- ▶ Excellent bond to concrete substrates.
- ▶ Contains no chloride additives.
- ▶ Shrinkage compensated for use in structural reinstatement applications.
- ▶ Prepackaged to provide reliable and reproducible site results.
- ▶ Compatible with RocCote and other protective coating systems

TYPICAL PROPERTIES

Color and Appearance	Grey powder
Mixed Density	2.0±0.1kg/m ³
Pot life	30-40 mins @30oC

CHEMCON

Service temp:	+5°C to 65°C
Application Temp:	30+/-10°C
Drying Time	Min 6 hours
Shear Bond strength ASTM C 882	Min 15 N/mm ² @ 28 days
Flexural Strength (BS 1881)	7.N/mm ² @ 28 days
Bond Strength ASTM D4541	Min 1.5N/m ²
Compressive Strength BS 6319-2	50N/mm ²

DIRECTIONS FOR APPLICATION

Substrate Preparation: The perimeter of the area to be prepared must be clearly marked. The substrate must be sound and free from dust, oil, grease or other contaminants and should be suitably textured to provide adequate mechanical key; water jetting or needle gunning may achieve this. Edges must be cut back to at least 12mm to avoid feather edging. After preparation if the substrate is still weak or the steel is still corroded the extent of the area to be repaired must be increased. The surface should then be cleaned with oil-free compressed air

Priming: The reinforcement must be fully exposed and thoroughly cleaned around its

whole circumference during preparation. Grit blasting to SA2½- SIS215-900:67 is the preferred method. The steel should then be coated with **RocBuild ZP**.

Selection of a concrete bonding agent will depend on the cause of the damage. For chloride induced repairs use

RocBond EP. Being epoxy based the bonding agent will seal the perimeter of the repair preventing chlorides from migrating to the repair from the parent concrete. For all other repairs use either **RocBuild PS** or **RocBond AR**.

Mixing: It is recommended that **RocBuild HS** is mixed by forced action mixer (e.g. Creteangle) adding the powder to the water and mixing for approx. 3 minutes until homogenous; care must be taken to avoid over-mixing since air-entrainment could reduce the properties of the material. **RocBuild HS** requires 3.9 litres of water per bag. This may be adjusted + 10% to vary the consistency of the mix.

Application: **RocBuild HS** must be applied whilst the priming

coat is still tacky; compact with a rubber gloved hand or wooden trowel. Ensure complete contact and compaction with the substrate. Finish with a steel float. Thicknesses of 30-50 mm are possible in one coat, depending on application parameters. For deeper sections, multiple applications will be necessary; intermediate coats should be textured to provide a key for subsequent coats. Successive applications will not require the use of the primer coat provided that the re-application is undertaken within 2 hours; if required use **RocBond AR**.

Curing: Proper curing of **RocBuild HS** is essential, use wet hessian and polyethylene sheet. If water curing proves impractical use **RocCure CL** immediately after initial set and provide full protection from sun and drying winds. Surface

Treatments: In order to unify the appearance of a structure and to prevent further deterioration by the ingress of water and carbon dioxide, the use of one of the **RocCote RocCrete** range of coatings is recommended.

PACKAGING & STORAGE

RocBuild HS is available in 25 kg bags and should be stored as cement, under dry frost-free conditions. Shelf life will be 9 months.

HEALTH & SAFETY

As with all **CIL** chemical products, care should be taken to avoid contact with skin, eyes, mouth and foodstuffs. Treat splashes to eyes and skin immediately, by thorough washing with clean water. If ingested seek medical attention.

OTHER BONDING AGENTS AND TILING PRODUCTS AVAILABLE FROM CIL.

- ▶ **RocBuild EL**--High build epoxy lining for chemical & abrasion resistance Applications
- ▶ **RocBuild MC**--Shrinkage compensated, polymer modified, micro concrete
- ▶ **RocBuild TG** --Single component , hot climates concrete and masonry Reinstatement Repair mortar
- ▶ **RocCoat NT** --Non-toxic, epoxy resin coating for potable water applications
- ▶ **RocBond AR**--Single component acrylic bonding agent and Primer
- ▶ **RocBuild HL**--Lightweight High Build Cementations' repair mortar
- ▶ **RocBuild NF**--Multi purpose, non slump adhesive & repair putty
- ▶ **RocBuild ZP** --Single component, epoxy zinc primer for steel

RocCoat PE --Solvent free pitch extended epoxy resin protective coating

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your local Product representative or visit our website for current technical data and instructions.

Disclaimer

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the user's responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer? Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and CIL makes no claim that these tests or any other tests, accurately represent all environments.

CHEMCON INTERNATIONAL LLC

P: 12360, Thoban Fujairah, United Arab Emirates T: +971 6 882 0024

E: info@chemconinternational.com W: www.chemconinternational.com