

Technical Data Sheet - TDS



RocBuild TG

Single component, hot climates ,concrete and masonry

PRODUCT DESCRIPTION

RocBuild TG is a single pack , polymer modified, fibre reinforced cementitious repair mortar. RocBuild TG is a high strength reinstatement mortar with shrinkage compensating properties. RocBuild TG consists of a blend of Portland Cement, graded silica sands, styrene acrylic copolymers, non-asbestos fibres and shrinkage control agents.

TYPICAL APPLICATIONS

General concrete and masonry repairs. Vertical and overhead repairs to restore 'covercrete. Voids greater than 10 mm deep. Repairs to honey combing. Larger scale repairs where formwork cannot be erected. Advantages High build achievable without formwork - saving time and expense of multiple applications .Formulated for use in hot climates Can be applied by the wet or dry spray process for fast exceptionally high build repairs with enhanced characteristics

Low permeability provides good protection against carbon dioxide and chlorides Excellent bond to concrete substrate Shrinkage compensated Contains no chloride admixtures
Description **RocBuild TG** is supplied as a ready to use blend of dry powders, which requires only the addition of clean water to produce a highly consistent, lightweight repair mortar suitable for general purpose concrete and masonry repairs.
Properties The following typical results were obtained at water to powder ratio of 0.18 and temperature of 20°C

ADVANTAGES

- ▶ High strength and related physical properties.
- ▶ Maximum compatibility with concrete of compressive strength 35 - 60 N/mm²
- ▶ Excellent bond to concrete substrates
- ▶ RocBuild TG is suitable for repair methods 3.1, 3.3, etc as defined by BS EN 1504-3.
- ▶ 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

Mixed Density	1.85±.05Kg/m ³
Color and Appearance	Grey powder
Slant shear bond strength (Bs 1881)	24N/mm ² @ 28 days

Service temp:	+5°C to 65°C
Flexural Strength (BS 1881)	5.5N/mm ² @ 28 days
Tensile Strength (BS 1881)	1.5N/mm ² @ 28 days
Compressive Strength (BS 1881)	40N/mm ² @ 28 days
Adhesion Strength (BS1881)	1.5N/mm ² @ 28 days
Water Absorption ISAT BS 1881)	< 0.18ml/m ² /sec at 10 mins
Drying shrinkage (ASTM C 596)	< 350 micro strain @ 28 days

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 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**. Refer to separate data sheets for product instructions.

Mixing: It is recommended that **RocBuild TG** 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 TG requires 4.5 litres of water per bag. This may be adjusted + 10% to vary the consistency of the mix. The mix remains workable for 30-40 minutes, depending on ambient conditions

Application: RocBuild TG 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 applica-

tion 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 TG** is essential, use wet hessian and polyethylene sheet for 3 days. Thereafter use RocCure CL. 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 range of coatings is recommended. RocCrete combines excellent protective properties with a natural concrete appearance.

PACKAGING & STORAGE

RocBuild TG is available in 25 kg bags and should be stored as cement, under dry frost-free conditions. Shelf life will be 12 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
- ▶ **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
- ▶ **RocBuild FC**--Single component, polymer Modified fairing coat

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