ARK
CHEMICALS

RG GROUT reinforced, thixotropic repair mortar DESCRIPTION

RG GROUT repair mortars is a one-componentthixotropic, dual shrinkage-compensated,fiber reinforced high strength Formulation for structural concrete repairs.

- Can be applied vertically or overhead by low-pressure wet-spraying or hand trowelling
- Dual shrinkage compensated
- One component - only addition of water
- High early and ultimate strengths
- Quality controlled - uniform, predictable results
- No additional bonding agent required
- Spray able, virtually no rebound
- Impermeable to aggressive elements
- Capable of vapour diffusion and resistant to frost and dew-salt
- Resists the penetration of CO2 and moisture (carbonisation), at the same time checks corrosion and is to a high degree resistant to Saponification.

RG FIELDS OF APPLICATION

Up to 50mm thickness in one layer, such as:

- Repairs to bridges, parking garages, tunnels
- Repairs to piers, navigation locks, dams, sea
- Walls and other marine structures
- Repairs to industrial structures such as oil storage facilities, silos, chimneys etc.
- Extensive repairs to beams, columns and other structural elements
- Repair of structural members subjected to
- Repetitive loading



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RG

TECHNICAL DATA

TYPE	**RG**
Color	**Grey powder**
Water/powder ratio, by weight	**0.14**
Compressive strength ,(ASTM C109, 7cm cube)	**2.32, 900 PSI**
Flexural strength (ASTM C348)	**7,250 PSI 8,700 PSI**
Tensile strength (ASTM C496)	**10,150 PSI > 1,305 PS**
Resistivity approx.	**I> 580 PSI 12500 Ù cm**
Water penetration (DIN 1048)	**< 5 mm**
Diffusion	**2.58 x 10 -8 Density of freshly mixed mortar kg/dm3 PROCESSING**

CONSUMPTION:
One 25kg bag of RG mixed with 3.5 liters water will yield approximately 12.4 liters.

supplied in **25-kg-bag**

storage: **Dryshelf-life: 9 months in closed containers**
T
est certificate: BAM Berlin Corrosion protection no. VII.1/25201/1
Adhesion bridge no. VII.I/25202/2

hazard class: **No dangerous substance follow safety data sheet**

PROCESSINGSURFACE PREPARATION:

The prepared surface should be structurally sound and free from contaminants. Remove concrete that has been saturated with oil or grease. Simple light sand blasting will not provide a sufficient profile for most repairs. Depending on the substrate condition andenviron mental requirements, use an effective method for removal of weak concrete such as, wet grit blasting,high pressure water jetting and needle scaling. Saw cut the boundary of repair area perpendicular to the surface to at least 10 mm depth and remove concrete with in the saw-cut boundary at least to that depth. Where saw cutting is not possible, after material removal, prepare the edge of the repair area vertical. Prepare the final surface free from dust and debris and to a rough profile with at least 5 mm level difference between surface troughs and peaks. Where re bar are corroded, cutback the concrete to at least 20 mm behind re bar. Gritb last around the re bar to remove corrosion products. Replace the affected part of re bar if the diameter after grit blasting is found reduced by more than 20% of the original diameter.

MIXING:

RG must be mixed mechanically. Use aheavy- duty, slow speed drill with spiral mixing paddle or a Pan Type mixers etc. Place approximately 80% of the water in the mixer. Keeping the mixer running, add powder slowly. Mix for3-4 minutes or until a lump-free mix is obtained. Add from the balance 20% water, while continuing to mix,until the desired consistency is achieved. PLACING RG has been formulated for placing both by trowel and spray application, depending on the size and location of the repair area. For best results,before application by trowel, apply the first layer by gloved hand including packing behind the re bar, and then firmly trowel on the rest to required thickness. When applying by hand force RG tightly on to the substrate to ensure intimate contact with the pre-wetted substrate. If applying by spray, for best results, utilize the services of an experienced nozzle man. Finish the final surface smooth using a wood, plastic or synthetic sponge faced trowel. When the material has stiffened to the point where finger pressure lightly marks the surface, give a final firm trowel ling using as teel float.

CURING:

Good curing is essential. Particular care is required in hot and/or windy conditions. Covering the work with plastic sheet fixed over wet hessi an or wet foam rubber