

# R1

## REPAIR EXTRA

ONE COMPONENT FIBER REINFORCED REPAIR MORTAR

### REPAIR

Repair extra -R1 is a one component, cementitious, ready-to-use, silica fume enhanced, fiber reinforced, high strength, shrinkage compensated repair mortar. Repair extra R1 is formulated for hand trowel or low pressure spray application methods. Designed for horizontal (i.e. flat), vertical and overhead installations.

### USES

- On grade, above and below grade concrete On horizontal surfaces (e.g. for spall repairs on flat work, or as an overlay)
- On vertical and/or overhead surface repairs when either hand trowel or spray applied
- As a structural repair material for water and wastewater treatment plants, manholes, parking facilities, industrial plants, walkways, bridges, tunnels, dams, abutments, balconies, etc.
- As a filler for voids and cavities For the repair of substrates such as concrete, mortars and masonry

### ADVANTAGES

- Ready-to-use, one component material
- Easy to mix, just add clean water
- Can be installed by hand trowel
- Sprayable system
- Superior workability
- Superior abrasion resistance
- Sulfate resistant
- Great adhesion
- Increased resistance to deicing salts
- High early strengths
- Good freeze/thaw resistance
- Silica fume enhanced
- Fiber reinforced

### PRODUCT INFORMATION

Composition	Cementitious material with fiber
Packaging	25 kg bag
Appearance / Colour	Grey Powder
Shelf Life	12 months from date of production
Storage Conditions	Store in cool, dry, well ventilated conditions, out of direct sunlight at 35 °C. Protect powder from moisture. If permitted to become damp, discard material.
Density	Fresh mortar density: ~2.1 kg/l (at +25 °C)

### TECHNICAL INFORMATION

Compressive Strength	60Mpa@28 Days (ASTM C 109)
Flexural Strength	2 Mpa @ 28 Days (ASTM C 1583)
Tensile adhesion strength	>5 Mpa @ 28 days (ASTM C293)

### APPLICATION INFORMATION

Mixing Ratio	3.0–4.0 L of water per 25 kg bag
Cosumption	1-1.5 kg/mm2 depends on thickness

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### APPLICATION INSTRUCTION

#### SUBSTRATE QUALITY / PRE-TREATMENT

Surfaces must be clean and sound. Remove all deteriorated concrete, dirt, dust, oil, grease, contaminants and other bond-inhibiting materials from the area to be repaired.

Preparation work should be done by high pressure water blasting, scabbling, or other appropriate mechanical means. Obtain an exposed aggregate surface with a minimum surface profile of  $\pm 1/8$  inch (3 mm) on clean, sound concrete.

To ensure optimum repair results, the effectiveness of decontamination and substrate preparation can be assessed by a Pull-Off test (i.e. a Tensile Adhesion test per ASTM C1583). Saw cutting the perimeter edges of the repair area is recommended, preferably cut at a dovetail angle.

#### MIXING

With water: Pour 2.8 liters of clean water into a suitably sized mixing container.

- Add the entire bag's contents of Repair extra to the container while continuously mixing with a low-speed rotary drill (400 - 600 rpm) and paddle or a concrete mixer.
- Do not overwater. Excess water may cause segregation.
- Mix to a uniform consistency, maximum 3 minutes. Thorough mixing and proper proportioning are necessary

### APPLICATION

Apply Repair extra mortar by hand trowel or spray methods for the repair of horizontal, vertical or overhead concrete surfaces.

At the time of application, the substrate surfaces must be saturated surface dry (SSD) but hold no standing water.

### CLEANING OF TOOLS

Clean all tools and application equipment with clean water immediately after use. Hardened / cured material can only be removed mechanically.

### BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

### HEALTH AND SAFETY INFORMATION

For information and advice on the safe handling storage and disposal of chemical products, users shall refer to the most recent MSDS containing all the details.

### LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application.



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