

# Viacrete Repair Mortar – HB

## PRODUCT DESCRIPTION:

Viacrete Repair Mortar – HB is a ready-to-use, fibre-reinforced, polymer-modified structural repair mortar. It provides high compressive strength, excellent bonding to concrete and steel, and is suitable for overhead, vertical, and deep repair applications. Ideal for restoration of concrete structures in industrial, residential, and infrastructure segments.

### Technical Details

Property	Result
Appearance	Grey free-flowing powder
Water:Powder Ratio	0.17–0.18
Fresh Wet Density	~2200 ± 100 kg/m <sup>3</sup>
Compressive Strength (28 days)	≥ 45 N/mm <sup>2</sup>
Flexural Strength (28 days)	≥ 8 N/mm <sup>2</sup>
Tensile Strength (28 days)	≥ 4.5 N/mm <sup>2</sup>
Bond Strength	≥ 2.44 N/mm <sup>2</sup>
Shrinkage/Expansion (dry/wet)	≥ 2.12 – 2.22 N/mm <sup>2</sup>
Thermal Compatibility (bond test)	≥ 2.23 N/mm <sup>2</sup>
Chloride Content	≤ 0.01%
Capillary Absorption	≤ 0.31 kg/m <sup>2</sup> h <sup>1/2</sup>

### KEY FEATURES & BENEFITS

- ✔ Dual shrinkage compensation minimizes cracking
- ✔ High durability – conforms to EN 1504-3 Class R4
- ✔ Strong adhesion to old concrete (≥ 2 MPa)
- ✔ Easy to apply on vertical and overhead surfaces
- ✔ Layer thickness up to 30 mm (vertical), 40 mm (overhead)
- ✔ Fast-setting for quicker repairs

### RECOMMENDED USES

- ✔ Structural repairs in beams, columns, slabs, and ceilings
- ✔ Reinstatement of spalled concrete in industrial structures
- ✔ Patch repair for RCC members, precast units, and facades
- ✔ Suitable for vertical and overhead repairs in tunnels, parking structures, and bridges
- ✔ Ideal for repairing load-bearing elements exposed to environmental stress
- ✔ Restoration of damaged concrete in balconies, parapets, and water retaining structures

### SHELF LIFE & STORAGE

- ✔ 6 months in original unopened packaging
- ✔ Store in cool, dry conditions away from moisture

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## SAFETY PRECAUTIONS

- ✔ Always wear protective gloves, goggles, and masks during mixing and application
- ✔ Avoid direct contact with skin and eyes – wash immediately with water if exposed
- ✔ Work in well-ventilated areas
- ✔ Do not breathe dust – use a dust mask when handling dry material
- ✔ In case of ingestion or prolonged irritation, seek immediate medical attention
- ✔ Keep out of reach of children and pets

## COVERAGE

- ✔ 1.4 m<sup>2</sup> per 25 kg pack at 10 mm thickness
- ✔ 14 litres yield per 25 kg bag (at W/P ratio 0.18)

## LIMITATIONS

- ✔ Not recommended for use below 10°C or above 40°C without special precautions
- ✔ Do not apply over loose, dusty, or contaminated surfaces
- ✔ Avoid re-tempering once the mortar starts setting  
Not suitable for areas exposed to continuous chemical immersion unless protected  
Always use chilled water if ambient temperature exceeds 30°C
- ✔ Application thickness exceeding limits (30 mm vertical / 40 mm overhead) may lead to cracking
- ✔ unless applied in layers

## Application Instructions

### 01. SURFACE PREPARATION

- ✔ Remove all damaged/loose concrete
- ✔ Ensure surface is clean, solid, and free from contaminants
- ✔ Mechanically roughen the surface by abrasive blasting or jetting
- ✔ Maintain substrate temperature between 10°C and 35°C
- ✔ Pre-soak the area for at least 2 hours before application (no standing water)

### 02. APPLICATION

- ✔ Apply using a trowel for vertical and overhead surfaces
- ✔ For steel reinforcement, apply anti-corrosion coating before use
- ✔ Use a thin contact coat followed by layering (20 mm per layer recommended)
- ✔ Apply in layers up to 30 mm (vertical), 40 mm (overhead)
- ✔ Finish using trowel, float, or sponge after the mortar stiffens

### 03. CURING

- ✔ Protect the surface from heat and drafts during curing
- ✔ Mist-spray with water or cover with damp burlap for the first 24 hours
- ✔ Alternatively, use a non-solvent-based curing compound
- ✔ Avoid pond curing and remove any curing compound before final finishes