

Viacrete Micro Concrete

PRODUCT DESCRIPTION:

Viacrete Micro Concrete is a high-strength, pre-mixed, single-component cementitious material modified with advanced polymers. Designed specifically for structural repairs, it offers excellent flowability and non-shrink performance, making it ideal for difficult-to-reach areas where vibration isn't possible. Simply mix with water on-site to produce a pourable, free-flowing repair mortar suitable for vertical, horizontal, and overhead applications.

KEY FEATURES & BENEFITS

- ✔ High early and ultimate compressive strength
- ✔ Non-shrink and dimensionally stable
- ✔ Single-component – just add water
- ✔ Excellent flow for easy pouring or pumping
- ✔ Safe for steel – chloride-free
- ✔ Suitable for deep repairs with aggregate extension
- ✔ Smooth finish and low permeability
- ✔ Quick application and minimal wastage

SUITABLE FOR

- ✔ Repair of damaged beams, slabs, columns
- ✔ Jacketing of RCC elements to enhance load-bearing capacity
- ✔ Filling of voids, honeycombs, and large cavities
- ✔ Structural strengthening in bridges, flyovers, and industrial floors
- ✔ Repairs in areas with congested reinforcement or no vibration access
- ✔ Horizontal/vertical repair zones in commercial and residential structures

Mixing & Application

1. SURFACE PREPARATION

- ✔ Remove oil, grease, dust, laitance, and weak or loose particles from the surface.
- ✔ Mechanically roughen smooth surfaces for improved bonding.
- ✔ Fully expose and clean corroded reinforcement to remove rust and scale.

Technical Details

Property	Result
Components	Single-component dry powder
Appearance (Mixed)	Smooth, flowable cementitious slurry
Colour	Light Grey
Fresh Wet Density @ 27°C	2200 – 2300 kg/m ³
Water-Powder Ratio	0.10 – 0.12 by weight
Pot Life	Approx. 30 minutes @ 27°C
Unrestrained Expansion	1 – 4%
Compressive Strength	1 Day – 10 MPa 3 Days – 20 MPa 7 Days – 30 MPa 28 Days – 40–50 MPa
Flexural Strength @ 28 Days	3.5 MPa
Tensile Strength @ 28 Days	3.0 MPa
Shrinkage	Nil
Yield	Approx. 12–13 Liters per 25 kg bag
Shelf Life	6–12 months in sealed condition

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Mixing & Application

1. SURFACE PREPARATION

- ✔ Apply epoxy zinc-rich primer if needed.
- ✔ Pre-saturate the substrate with clean water. Remove standing water before pouring.

2. MIXING INSTRUCTIONS

- ✔ Always use a mechanical mixer or paddle with 400–500 rpm
- ✔ Add the specified water into a mixing drum
- ✔ Gradually add Viacrete GP2 powder while mixing continuously for 3–5 minutes
- ✔ Mix until a smooth, flowable grout is formed

3. PLACEMENT

- ✔ Pour grout from one side to avoid air entrapment
- ✔ Maintain continuous grout flow for optimal results
- ✔ Use a grout head or reservoir to maintain pressure during placement
- ✔ For depths above 100 mm, consult Viacrete team for deep pour method

4. CURING

- ✔ Start curing immediately after de-shuttering using:
- ✔ Viacrete Bond AR (curing compound), or
- ✔ Wet hessian or polythene sheets
- ✔ Continue curing for a minimum of 3–5 days depending on ambient conditions.

YIELD

Consistency	Water (L/20kg)	Approx. Yield (L)
Stiff	2.9 – 3.6	10.6 L
Plastic	3.6 – 3.8	10.7 L
Flowable	3.8 – 4.0	10.8 L
Fluid	4.0 – 4.1	10.9 L

SHELF LIFE & STORAGE

- ✔ Store in original, sealed packaging in a cool, dry area away from direct sunlight and moisture
- ✔ Shelf life: Up to 12 months from manufacturing date in ideal storage conditions

LIMITATIONS

- ✔ Do not add more water than recommended
Not to be applied over moving or damp substrates
- ✔ Not a substitute for structural reinforcement or grout for anchor bolts
- ✔ Not suitable for feather-edged applications (<10 mm thickness)
- ✔ Always consult Viacrete technical support for repairs over 100 mm thickness