



## Vetocrete FC803

High-strength structural fine shotcrete

### Uses

- Ideal for extensive vertical & overhead structural repairs.
- Supports columns and beams effectively.
- Ideal for new construction projects.
- Ideal for polystyrene sandwiching & paneling.

### Product Description

Vetocrete FC803 is a single-component, polymer-modified, fiber-reinforced, cementitious shotcrete that is ideal for structural repairs (when applied pneumatically). It is ready to use, and only requires the addition of water on site. Once mixed, the product becomes a pumpable, sprayable fine concrete suitable for structural repairs while maintaining compatibility with most concrete types.

Vetocrete FC803 is composed of a blend of hydraulic cement, carefully selected and graded aggregates, fibers, and special additives to give it its unique properties.

### Advantages

- Easy to use (a single component product).
- Exhibits high physical & mechanical properties.
- Extremely low permeability (where it provides reinforcement protection against corrosion & resistance to ingress of contaminants).
- Exhibits no shrinking properties (ensures dimensional repair stability).
- Suitable for internal & external applications.
- It is breathable and compatible with most concrete types.
- Its thixotropic properties allow a high build-up in vertical & overhead repairs.
- Minimal sagging.

### Standards Compliance

- ACI 506.2

### Technical Data

Vetocrete FC803	Typical Values
Drying Shrinkage - ASTM C157 @ 28 Days (%)	0.006
Capillary Absorption (Water Permeability) (DIN 1048) (mm)	< 5
Fresh Mixed Density (kg/ltr)	2 (Approx.)
Compressive Strength - ASTM C109 (MPa)	
@ 1 Day	≥ 15
@ 3 Day	≥ 35
@ 28 Day	> 48
Flexural Strength - ASTM C580 @ 28 Days (MPa)	> 6
Tensile Strength - ASTM C307 @ 28 Days (MPa)	> 2.0
Rapid Chloride Permeability - ASTM C1202 (Columbs)	< 500
VOC Content - ASTM D2369 (gm / Liter)	< 10 (LEED Compliant)
Pot Life	Material can be mixed & sprayed immediately
Initial Setting Time (Hours)	3
Final Setting Time (Hours)	4
Aggregate size (mm)	2.4
Application Temperature (°C)	5 - 35

## Usage Instructions

### Surface Preparation

Cut back all damaged & weak concrete to reach a sound surface and/or until a minimum depth of at least 10 mm is reached.

Grit-blast corroded steel reinforcements to remove all rust traces. In case of significant loss in the steel reinforcement cross-section, replace the steel entirely.

Remove all concrete forms around the exposed steel reinforcements (until a thickness of 25 mm is reached). Then saw-cut the perimeters of the repair area to a minimum depth of 10 mm. Clean the prepared area thoroughly with a brush and/or compressed air.

For new construction, prepare a steel reinforcement and pump the material until the desired thickness is reached. Use a suitable high-to-medium pressure pneumatic pump.

### Priming

Before using Vetocrete FC803, prime grit blasted steel reinforcements within 2 to 4 hours of the application while doing repair work. You can do this by applying 1 or 2 coats of Vetoprime CP436 (a corrosion inhibitor for steel reinforcement).

Soak the areas being repaired with clean water before applying the repair mortar. Remove all excess water before the application begins. (Note: apply one coat of acrylic bonding agent Vetobond AB432).

Allow Vetobond AB432 to become tacky before applying the repair mortar (Vetocrete FC803). For new construction, clean the substrate and steel reinforcement from dirt, rust, or any material that can hinder the bonding.

### Mixing

To ensure proper mixing, use a mechanically-powered mixer or a drill fitted with a suitable paddle. Add 10 - 13 liters of clean water to a clean container. Then slowly add the powder to the water while mixing continuously with a low-speed mixer/drill (400-600 rpm). Continue mixing for 5 minutes until a uniform consistency is obtained. For large quantities, use a large mechanical drum mixer.

Add water to fill 2/3 of the mixer capacity. While mixing, add the powder and then gradually add the rest of the water until the desired consistency is reached.

### Placing and Finishing

Apply Vetocrete FC803 pneumatically using a suitable pump to ensure good adhesion with the steel reinforcements & the substrate.

Initially, finish & level the surface using an aluminium rod or steel trowel. Use a steel float for the final finishing. Finish the applied material surface within one hour, as the material sets faster than regular concrete and mortar.

### Curing

Vetocrete FC803 is a cementitious-based material; therefore, cure it like you cure concrete by continuous watering and covering the surface with polyethylene sheets.

### Cleaning

Clean all tools with freshwater immediately after application. Clean hardened materials mechanically.

### Limitations

Apply Vetocrete FC803 in a single application for sections up to 20 mm in thickness for overhead applications.

## CONCRETE REPAIR

### Packaging & Coverage

Product	Pack Size	Consumption
Vetocrete FC803	50 kg bag	28 liters (Approx.)

Stated consumption data are for general guidance. Actual consumption depends on the nature of substrate, method of application, and wastage.

### Shelf Life & Storage

The original sealed bag of Vetocrete FC803 has a shelf life of 12 months, provided it is stored clear of ground, in a dry and shaded place at a temperature between 5 & 35°C.

### Health & Safety

Vetocrete FC803 contains resins, which may cause sensitivity if it comes to contact with your skin. Avoid contact with your eyes and don't inhale the vapor. Wear suitable protective clothing, gloves, and eye/face protection. Barrier creams provide additional skin protection.

Should accidental skin contact occur, remove immediately with a resin removing cream, followed by soap and water. Do not use solvents. In case of contact with the eye, rinse immediately with plenty of clean water, and seek medical advice. If swallowed, seek medical attention immediately. Do not induce vomiting. Vetocrete FC803 is non-flammable.

### Additional Information

Saveto manufactures a wide range of construction chemicals and specialty products for various applications.

For further information on these products and systems kindly check our website or contact your local Saveto representative.

Saveto also provides various technical information such as CAD details, detailed method statements, specification clauses, application manuals, product selectors and technical support both in contractors and consultants offices as well as construction sites.

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