



# RENDEROC SM

## Modified microconcrete for floor repairs

### Uses

Renderoc SM is ideal for repairing large damaged floors, such as warehouses, production area, parking area.

### Advantages

- High early and ultimate strength
- Low permeability to ensure durability and provide excellent protection against carbon dioxide and chloride.
- Shrinkage compensating – reduces and eliminates cracks at hardening state
- Contains no chloride admixture
- Pre-packed material, ready to use with only addition of water on site.

### Description

Renderoc SM is high strength non-shrink cementitious flowing micro-concrete specially formulated from Portland cement, graded filler, shrinkage compensating agents and special additives. Renderoc SM is supplied as ready to use dry powder. It is only required additional of clean water to produce a flowing repair micro-concrete up to 100 mm thickness.

### Technical Supports

Fosroc offers a comprehensive range of high quality, high performance construction products. In addition, Fosroc offers a world-wide technical support and on-site service to specifiers, end users and contractors.

### Properties

The following results were obtained at a water : powder ratio of 0.12 and temperature 30 C

Test	Typical result
<b>Compressive strength</b> <b>ASTM C942: 1999</b>	32 N/mm2 @ 1day 45 N/mm2 @ 7 days 55 N/mm2 @ 28 days
<b>Flexural strength</b> <b>BS 4551 1980</b>	7.0 N/mm2 @ 28 days

<b>Drying shrinkage</b>	<400 microstrain @ 7 days <700 microstrain @ 28 days
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<b>Setting time</b> <b>ASTM C953 : 1997</b>	Initial 5.5 hours Final 6.5 hours
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<b>Fresh wet density</b>	: Approximately 2300 kg/m3
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<b>Young Modulus</b> <b>ASTM 469-83</b>	: 28 kN/mm2
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### Application Instruction

#### Preparation

#### Floor Surface

The substrate surface must be free from oil, grease or any loosely adherent material. If the concrete surface is defective or has laitance. It must be cut back to a sound base.

#### Priming

Area to be repaired should be applied suitable primer, such as Nitobond AR / Nitobond SBR prior to application of Renderoc SM.

#### Mixing

The quantity of water required to achieve the desired consistency is precise, and the volume used should be in accordance with the following

Desired Mix Consistency	Water in liter per 25 kg bag
Flowable	3.0 liter

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Use a high shear mechanical mixer or drill (400 rpm) and mixing paddle (also available from Fosroc). Ensure that machine capacity and the number of operatives are adequate to enable grouting to be carried out as a continuous operation. The need to observe the accurate gauging of water addition and the stated mixing time should be stressed to all operatives. When using a mechanical mixer to prepare pump and flow consistency grouts, add approximately 90 % (w/w) of the recommended water requirement (see above) to the mixer before adding the dry powder. Mix until lumps are broken up (approximately 2 minutes), before adjusting the consistency with the addition of the gauge water. Mix until homogeneous for at least another 3 minutes.

## Curing

On completion of the grouting operation, exposed area should be thoroughly cured. This should be done by the use of Concure curing membrane, continuous application of water and/or wet hessian.

## Cleaning

**Renderoc SM** should be removed from tools and equipment clean water immediately after use. Cured material can be removed mechanically.

## Estimating

## Supply

**Renderoc SM** is supplied in 25 kg moisture resistant bags.

## Storage

**Renderoc SM** has a shelf life of 12 months if kept in a dry store in sealed bags. If stored in high temperature and high humidity locations the shelf life may be reduced.

## Precautions

### Health and safety

**Renderoc SM** is alkaline and should not come into contact with skin and eyes. Avoid inhalation of dust during mixing.

Gloves, goggles and dust mask should be worn.

If contact with skin occurs, wash with water. Splashes to eyes should be washed immediately with plenty of clean water and medical advice sought.

### Fire

**Renderoc SM** is non- flammable.

### Additional information

For further details about the use and selection of grouts refer to the Fosroc Information Module entitle "Precision Grouting in the Construction Industry".

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