

## MONOFLEX CFR

### Elastomeric acrylic cement modified waterproof coating for roofs

#### Description

**MONOFLEX CFR** is a two component polymer modified cementitious, elastomeric waterproof coating for roofs and wet areas.

#### Applications

- For roofs waterproofing and wet areas.
- For waterproofing of water retaining structures and reservoirs.
- To provide protection for concrete substrates and masonry against carbon dioxide, chloride ions, water and de-icing salts.

#### Advantages

- Waterproof, suitable for roofs and water retaining structure and basements.
- Breathable, water vapour permeable.
- Durable, excellent resistance to UV attack.
- Excellent protection against carbon dioxide, chloride ions and water.
- Non-toxic, suitable for drinking water.
- Cost effective, quick and easy brush or spray application.
- Suitable for internal and external applications.
- Able to withstand foot traffic.
- Able to withstand high positive and negative pressures.

#### Method of Use

##### SUBSTRATE PREPARATION

The surfaces to be coated should be clean, sound, and free from any contamination. Remove any traces of curing compound, laitance, organic growth or any other loose materials.

This is best obtained by using high pressure water or light grit blasting.

Honey combing, damaged or deteriorated concrete exists, the substrate should be repaired using suitable low permeability repair mortar from STARKE repair systems before commencing the coating.

#### Priming

No primer is required, but substrates should be pre-soaked with clean water prior to application of **MONOFLEX CFR**.

#### Technical Properties @ 35°C:

**Mixed density:** 1.80 ± 0.05 g/cm<sup>3</sup>

**Working Time:** 45 min

**Colour:** Grey or white

**Mixing ratio:** 5.1 kg liquid polymer with 10.9 kg powder

##### Minimum application

**temperature:** 5°C

**Bond strength:** > 2 MPa

**(concrete failure)**

**ASTM D4541-02**

**Tensile strength:** > 2 MPa @ 28 days

**(mortar consistency)**

**BS 6319, Part 7**

##### Static crack

**accommodation:** 1 mm

**Permeability** Pass @ positive water pressure

**(2 mm thickness):** > 8 bars Pass @ negative water

**DIN 1048** pressure > 4 bars

**Flexural strength:** > 4 MPa

**(mortar consistency)**

**BS 6319, Part 3**

**Elongation at break:** > 15% dry curing after 28 days

**(without reinforcement) @ 4 mm thickness**

**ASTM D412 Maximum** 0.5 mm

**grain size:**

**Initial setting:** 40 - 50 min

**Final setting:** 2 - 3 hr

## Mixing

To ensure proper mixing, a mechanically powered mixer or drill fitted with suitable paddle should be used. The 5.1 kg of **MONOFLEX CFR** liquid should be added to a clean container.

The 10.9 kg powder is then added slowly to the liquid while mixing continuously with low speed mixer/ drill (400 - 600 rpm). Mixing time should be continued for 3 minutes until a uniform consistency is obtained.

## Application

**MONOFLEX CFR** can be applied by brush or spray. The mixed material should be brushed well into the surface. Strike off with the brush in one direction. Care must be taken not to spread the material too thin. When the material begins to drag, do not add any water, but dampen the surface again.

Leave the first coat overnight to cure before applying the second coat. The second coat shall be applied by brush in a similar way to the first layer but preferably perpendicular to the previous layer to ensure good bond and coverage.

Areas subjected to foot traffic fiber glass mesh (2\*2) needs to be installed between the two coats of **MONOFLEX CFR**

## Cleaning

All tools should be cleaned immediately after finishing by clean water. Hardened materials should be cleaned mechanically.

## Remarks

**MONOFLEX CFR** should not be applied to frozen substrate or if ambient temperature is below 35°C or expected to fall below 5°C.

## Packaging

**MONOFLEX CFR** is available as 16 kg packs (9 litre) (5.1 kg polymer and 10.9 kg powder).

## Coverage

Approximately 9 m<sup>2</sup> for 1 mm thickness.

Actual coverage can vary depending on the substrate conditions.

## Storage

**MONOFLEX CFR** has a shelf life of 12 months from date of manufacture if stored at temperatures between 5°C and 35°C.

If these conditions are exceeded, STARKE Technical Department should be contacted for advise.

## Cautions

### Health and Safety

As **MONOFLEX CFR** contains Portland cement and sand, **MONOFLEX CFR** may cause irritation to skin or eyes.

In case of accidental contact with eyes, immediately flush with plenty of water for at least 10 minutes and seek medical advise.

For further information refer to the Material Safety Data Sheet.

## Fire

**MONOFLEX CFR** is nonflammable.

More from starke construction chemicals A wide range of construction chemical products are manufactured by STARKE which include:

**Concrete admixtures.**

**Surface treatments**

**Grouts and anchors.**

**Concrete repair.**

**Flooring Coating**

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**Adhesives.**



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