

# **Technical Data Sheet**



# **Description**

**Tek-Crete FR** is a single component fiber reinforced non-shrink high strength cementitious repair mortar formulated from selected cements, sand, admixtures and aggregates. It has exceptional resistance to carbonation, chloride ingress, sulfate attack and freeze thaw attack.

#### **Advantages**

- Single component
- Non-shrink
- High strength
- Resistance to freeze/thaw attack
- Low permeability

#### Uses

- Marine structures
- Potable Water tanks
- Wastewater tanks
- Parking structures
- Decks and slabs
- Tunnels, dams, bridges
- Pile Head repair
- Structural repairs

# **Physical Properties\***

PROPERTY	TYPICAL RESULTS
Compressive strength	>70 MPa @ 28 days
Flexural Strength	>12 MPa @ 28 days
Bulk density	2.2
Minimum thickness	5mm
Maximum thickness	50mm
Bond strength	Greater than concrete tensile strength
*The above properties are average laboratory values	

## **Packing**

**Tek-Crete FR** is available in 25 kg bag.

# **Theoritical Coverage/yield**

Approximately 12 liters when mixed with 3.0-3.5 liters of clean water for 25 kg bag.

# **Shelf Life**

12 months when stored in factory packed unopened bag, stored in a cool dry and elevated place away from direct sunlight.

#### **Installation Guidelines**

Spraytek provides detailed method statements on all its products for use in various applications. These must be referred to prior to starting the work. The information below is a summary intended for guidance only.

#### **Surface Preparation**

Concrete substrate must be structurally sound. Loose or unsound concrete should be removed. Surfaces must be entirely free of oil, grease, paint, corrosion deposits, dust, laitance or other surface deposits. The substrate must be prepared to create a 'key' for bonding.

The substrate must be primed using clean water to achieve a saturated surface dry prior to application.

# **Protection of reinforcement steel bars**

Remove all corrosion deposits from the exposed reinforcement steel bars.

For protection against corrosion, coat the reinforcement steel bars with **Tek-Prime ZR**.

## **Priming**

The substrate must be primed using clean water and not allowed to dry out, prior to application.

#### **Mixing**

**Tek-Crete FR** is supplied as a single component cementitious product. Pour 3.0 to 3.5 liter of clean water into suitable clean container and slowly add the product while mixing with low speed drill (300-500 rpm) with mixing paddle. Mix approximately for 3-5 minutes to achieve right smooth consistency.

## **Application**

The mixed material should be applied immediately. The material should be applied to ensure thorough compaction around the reinforcement and against the edges of the reinstatement area. The repair is then finished by trowel.

Repair thickness from 5mm to 50mm in single layer.

## **Curing**

Curing shall be done by **Tek-Cure AR** or **Tek-Cure WB** or by wet hessian, which normal concrete curing method; the repaired areas should be protected immediately.

#### **Precautions**

Do not add additional water or re-temper the mix.

Ensure the temperature of the mortar does not exceed 35°C at the time of mixing.

Do not mix by hand.

Do not part mix, use full bag.

Do not apply in rain or wet conditions or at temperature below 5°C.

Do not expose to running water until the product is fully cured for 7 days.

# **Technical Support**

Spraytek offers full technical support package to specifiers, contractors and end users, as well as technical assistance on site and after sales consultations.

# **Health & Safety**

As with all chemical products, caution should always be exercised. Protective clothing, such as gloves and goggles, should be worn. See packaging/MSDS for specific instructions.

Treat any splashes to the skin or eyes with fresh water immediately. Should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately.

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