



# **CEMSCREED<sup>TM</sup> HM (F)**

## **GENERAL PURPOSE FIBRE REINFORCED SHRINKAGE COMPENSATING CEMENTITIOUS MICRO CONCRETE**

### **BENEFITS**

- Compensates for shrinkage in the plastic stage
- Can be pumped or poured into restricted locations
- Highly fluid to allow placement without vibration
- Prepacked factory controlled to overcome site-batched variations
- Rapid strength gain to facilitate early reinforcement
- High ultimate strength and low permeability of cured repair
- Does not contain any corrosive chemicals
- Ensures high tensile strength
- Specially reinforced with polypropylene fibre.
- Cost effective.
- Enhanced durability.

### **STANDARD COMPLIANCE**

**CEMSCREED HM (F)** complies to **ASTM C 157-93, BS 6319 Part-3 & 7, BS 1881 Part-116, 121 and DIN 1048 Part-5.**

### **USES**

**CEMSCREED HM (F)** is used for repairing of column having major loss of section, repairs requiring high fluidity, repairs requiring significant levels of load bearing.

### **DESCRIPTION**

**CEMSCREED HM (F)** is supplied as a ready-to-use, blend of dry powders which requires only site addition of water to produce a free flowing, non-shrink repair micro concrete. The material is based on Portland cement, graded aggregates, fillers and additives which impart controlled expansion characteristics in the plastic stage while minimising water demand. The low water requirement ensures high early strength and long-term durability. For larger repairs, mixed **CEMSCREED HM (F)** can be modified by the addition of 12 mm clean, graded, saturated, surface dry aggregates at site.

### **PROPERTIES**

**Expansion (unrestrained) :** 0.8 - 1.5% by volume  
**Fresh wet density :** 2200 kg/m<sup>3</sup>

The following test results were obtained at different water/powder ratio.

| Age in days | Compressive Strength kg/cm <sup>2</sup> |                                  |
|-------------|---|----------------------------------|
|             | Water powder ratio 0.18 flowable        | Water powder ratio 0.16 Pourable |
| 1 day       | 150                                     | 200                              |
| 3 days      | 375                                     | 400                              |
| 7 days      | 400                                     | 500                              |
| 28 days     | 550                                     | 650                              |

### **APPLICATION**

**Surface Preparation :** The unrestrained surface of the repair should be kept to a minimum. Defective concrete surface should be cut back to a sound base. Smooth surface should be mechanically roughed. Corroded reinforcement should be exposed around its full circumference and remove all loose scale and corrosion deposits.

**Application :** Apply one coat of **SAFECORE R** to the exposed reinforcement. If any discontinuity in the applied film is noticed, one more coat has to be applied. The concrete substrates should be saturated with water, prior to immediate placing. Free water should be removed priming the substrate using **FAIRBOND EP**, a slow setting epoxy bonding aid, should be applied on dry substrate.

**Formwork :** Formwork should be leak-proof when subjected to hydraulic pressure imposed by the micro concrete. Provision should be made for air vents to prevent air entrapment, drainage outlets for presoaking. Formwork should be coated with **SETRELEASE**, mould releasing agent prior to fixing.

**Mixing And Placing :** Care should be taken to ensure that **CEMSCREED HM (F)** is thoroughly mixed in suitably sized drum with a torque (400-500 RPM) rotary drill fitted with a mixing paddle. The addition of graded aggregate where specified should be added after the water and **CEMSCREED HM (F)** should be properly mixed.

**Placing :** The mixed material should be placed immediately. If placed by pump, standard concrete pumping should be followed.

**Curing :** Curing should start within 2 hours and minimum curing time should be same as that for concrete (7 days) as a cementitious material.

**Low Temperature :** In cold conditions down to 15 °C, the use of warm water (up to 30 °C) is advisable to accelerate strength development.

# CEMSCREED<sup>TM</sup> HM (F)



## PACKING & YIELD

**CEMSCREED HM (F)** is available in 25 Kg bag yielding 12ltrs.

## SHELF LIFE & STORAGE

**CEMSCREED HM (F)** will have a shelf life of **12 months** in unopened containers when kept in dry conditions at a temperature between 5°C to 45°C. Storage at higher temperature or high humidity may reduce shelf life.

## HEALTH & SAFETY

**CEMSCREED HM (F)** is non-toxic but mildly alkaline. To protect skin, gloves and dust masks should be used. In case of contact with skin or eyes, wash with clean water and seek for medical advice.

## SPECIFICATION

**CEMSCREED HM(F)** is supplied as a fibre reinforced shrinkage compensating cementitious micro concrete ready to use blend of dry powder, supplied in 25kg HDPE bags yielding 12 ltr. of concrete when mixed with specified quantity of water, used strictly in accordance with the instruction of FAIRMATE.

## QUALITY ASSURANCE

Fairmate manufactures entire range of construction chemicals under compliance of ISO 9001, ISO (EMS) 14001 & OHSAS 18001 (Occupational Health and Safety) certified by ISOQAR / UK.

## TECHNICAL SERVICES

While new advances and changes will take place but one thing will never change is quality and meeting special needs of our customers. Our laboratory in Baroda and technical personnel & experts are available to provide additional information and technical assistance. We are eager to work with you in development of new product and resolve your problem.

## OUR RANGE OF PRODUCTS

|   |  |  |
|---|--|--|
| <b>CONCRETE ADMIXTURES</b><br><b>WATERPROOFING SYSTEMS</b><br><b>ENGINEERING GROUTS</b><br><b>INDUSTRIAL FLOOR SURFACES</b> | <b>CONCRETE REPAIRS</b><br><b>SURFACE TREATMENT</b><br><b>PREPACKED CONCRETE MORTAR</b><br><b>PROTECTIVE COATING</b> | <b>HIGHWAY REPAIR</b><br><b>LIQUID FLOOR</b><br><b>WALL FINISHING SYSTEM</b> |
|---|--|--|

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