

## Contite® FCWMCI

FLEXIBLE CEMENTITIOUS WATERPROOFING MEMBRANE CONTAINING A MIGRATING CORROSION INHIBITOR

### DESCRIPTION

A two part acrylic polymer modified flexible cementitious waterproof membrane containing a migrating corrosion inhibitor to protect reinforcement from corrosion. **Contite FCWMCI** provides excellent adhesion, flexibility, crack bridging ability, and durability. **Contite FCWMCI** is developed with an integral corrosion inhibitor that migrates through the concrete to form a passive layer on the reinforcement providing additional protection from chlorides and other salts.

### USES & ADVANTAGES

**Contite FCWMCI** is suitable for many waterproofing applications including for swimming pools, wet areas, basements, reservoirs, tunnels, subways, cooling towers, water tanks and all below grade concrete structures etc.

#### Advantages include:-

- Helps protect reinforcement from corrosion.
- Crack bridging.
- Non toxic.
- Excellent adhesion. Fully bonded.
- Protection against carbonation and chlorides.
- Unlike conventional coatings that require the concrete to cure for 7 - 28 days it can be applied to 24 hour old concrete.
- Suitable for use with steel fibre sprayed shotcrete
- Double bond when sandwiched between concrete or shotcrete.
- Excellent elongation and flexibility.
- Increased frost & salt resistance.
- Easy to apply by trowel or brush.
- Minimum surface preparation needed.
- Good chemical resistance to mild inorganic acid solution, diesel, gasoline, chlorides, deicing salts, organic solvents and effluents.
- Breathable - allows transmission of water vapour from interior of building.
- Withstands light pedestrian traffic.
- Non ignitable

### PROPERTIES

|                                  |   |
|----------------------------------|---|
| <b>Appearance:</b>               | Grey & special colours on request                                     |
| <b>Polymer Characterisation:</b> | Polyacrylate styrene  |
| <b>Mixing Ratio:</b>             | A : B = 4 : 5 by weight   |
| <b>Density:</b>                  | A + B (mixed) Approx. 1.5 kg/l.                                       |
| <b>Pot life:</b>                 | 30 minutes at 30°C. Pot life will be shortened at higher temperatures |
| <b>Initial Hardness Shore A:</b> | >50 ASTM D2240  |
| <b>Fire:</b>                     | Complies with EN ISO 11925-2 non ignitable Class E                    |
| <b>Tensile Strength:</b>         | >1.0 N/mm <sup>2</sup> ASTM D-412                                     |
| <b>Chloride Content:</b>         | 0.008% ISEA Method  |
| <b>Adhesion to Substrate:</b>    | Approx. 1.00-1.5 N/mm <sup>2</sup> ASTM D4541                         |
| <b>Drying Time:</b>              | EN ISO 4624 : 2003<br>1.30 to 2.00 hours depending on temperature     |
| <b>Flexibility Test:</b>         | No crack at 25 mm bending   |

**Crack Bridging:** No cracking at 2 mm width  
ASTM C-836 at full thickness  
No crack after 10 cycles of stretching and closing at 2 mm width.  
Complies with EN1062-7 : 2004

**Elongation:** > 300% (2 mm. thickness)

**Resistance to Water Penetration:** No water penetration  
DIN 1048 pt 5:1991 and EN 12390-8 : 2000

*\* Properties are typical under laboratory conditions and do not constitute a specification. Field trials are recommended.*

### COVERAGE RATES

#### Surface Water Pressure:

0.75-1.12 kg/m<sup>2</sup>/coat - 2 coats DFT approx. 1-1.5 mm.

#### Ground Water Pressure:

1.12-1.5 kg/m<sup>2</sup>/coat - 2 coats DFT approx. 1.5-2 mm.

**Light Foot Traffic:** 2 mm thickness in 2 coats

**Moderate to Heavy Foot Traffic:** 4 mm in 4 coats

### SUBSTRATE PREPARATION

The substrate should be clean and sound, free of dust loose particles, grease, oil, primers from previous membrane systems or bitumen. Spalled concrete should be repaired by cutting out to sound concrete and patching with **Conpatch 600 series**. Cracks, holes and honeycombs must be repaired prior to application (consult Cormix International Technical Department).

Areas at brick walls to receive waterproofing shall have brick joints evenly finished or skim-plastered while floor trap pipes shall be cut to the same level as the R.C. slab prior to waterproofing application.

At juncture or change of plane, between the slab and the wall, at corners and around pipe protrusion, a 25x25 mm cement mortar cant fillet shall be formed.

### MIXING

**Contite FCWMCI** is supplied in premeasured units. Slowly add the powder to the liquid and mix to a lump free smooth consistency.

Do not add water or rework a stiffened mix by adding water. Mix sufficient material to use within 30-40 minutes.

### APPLICATION

At high temperatures protect material from direct sun and wind to prevent early drying & shrinkage cracks. Concrete surface imperfections up to 2 mm. level with **Conpatch 300** above 2 mm. use **Conpatch 600 series**. Construction joints should have **Contite Waterstop** installed and joints wall to parapet a fillet of **Conpatch 600 series** formed.

Static cracks should be routed out & repaired with **Conpatch 600 series** & covered with **Contite FCWMCI** reinforced with **Elastocloth** embedded into the first coat. Smooth out any wrinkles using a trowel. Cover with second coat. Moving cracks should be filled with **Conflex LM** & a debond tape installed before over coating with **Contite FCWMCI**.

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Saturate the concrete's surface with clean water. Apply the first coat while the surface is still damp but No free standing water. Apply using a short stiff bristle brush, rubber squeegee, roller or spray. The required thickness is achieved by applying 2 layers, taking care that each layer is not thicker than 1mm. Leave the first coat to dry for 2-3 hours before applying the second coat. The second coat can be rubbed down with a soft dry sponge.

Spray or trowel application is acceptable providing the mixing ratio is adjusted to achieve the right consistency. Leave the second coat of **Contite FCWMCI** to cure overnight before proceeding to conduct water ponding test.

On hot surfaces e.g. above 40°C surface temperature a primer coat of mixed **Contite FCWMCI** and water with a slurry consistency should be applied. Consideration to saturating the surface in advance and protection from adverse wind & sun conditons must be given in exposed areas. The **Contite FCWMCI** must be applied over the primer coat before it dries. For light foot traffic areas the coating should be at least 2 mm thick. For advise contact Cormix Technical Service Department.

**TIME TO EXPOSURE AFTER APPLICATION**

Open to foot traffic after approx. 1 day. Application of tile mortar & tiles after approx. 1 day. Backfilling after approx. 3 days protect from damage if fill contains sharp material. Vertical surfaces may be exposed to rain after approx. 3 hours & horizontal surfaces after approx. 6 hours.

Hydrostatic pressure after 3-7 days at 23°C 60% humidity. Variations may occur due to climatic conditions such as temperature, humidity & substrate porosity.

**CURING**

**Contite FCWMCI** should be protected from high wind & intense sunshine. Keep moist for 3 - 4 days after application. Protect from rain until fully hardened.

**SUBSEQUENT FINISHES**

**Contite FCWMCI** is compatible with most forms of subsequent coatings. The material may be troweled over after 1 day or painted with a breathable solvent free paint (non silicate) after 3 days. It is manufactured to use in conjunction with **Elastodeck** acrylic coloured coatings from Cormix.

**Important Notes**

Not suitable for precast roofs.

Do not expose to water during setting.

Prolonged setting will be apparent if in high humidity.

Mechanically damaged **Contite FCWMCI** is easily repaired by cleaning the surface & reapplying material.

Detailing must be undertaken at joints, penetrations, upstands and cracks.

Do not apply **Contite FCWMCI** at temperatures below 5°C. At temperatures above 30°C **Contite FCWMCI** can be applied once the concrete has reached 3 days old. If in doubt consult Cormix International Ltd.

**CLEANING**

Clean tools with water immediately after use.

**PACKAGING**

36 kgs set.

Part A liquid 16 kg plastic pails; Part B powder 20 kg bags.

**STORAGE & SHELF LIFE**

The shelf life is 12 months if unopened, stored free from frost, moisture and direct sunlight.

**HEALTH & SAFETY**

**Contite FCWMCI** is non-toxic but is alkaline in its nature.

When applying gloves & goggles should be worn. Wash off splashes to skin with water. If in eyes wash out with plenty of clean water and seek medical attention. **Contite FCWMCI** is non-flammable. MSDS is available from Cormix.

**TECHNICAL SERVICE**

The Cormix International Technical Service Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

**QUALITY ASSURANCE**

ISO 9001: 2015 verified by TUV Nord.

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1012-CPD-0102  
EN 1504-2

Protection and repair  
of concrete structures :  
surface protection systems for  
concrete coating (PI, MC, PR)

|  |   |
|--|---|
| <b>Permeability to CO<sub>2</sub>:</b>                 | SD > 50 m                                 |
| <b>Permeability to water vapour:</b>                   | SD < 5 m                                  |
| <b>Capillary absorption and permeability to water:</b> | < 0.1 kg/m <sup>2</sup> .h <sup>0.5</sup> |
| <b>Pull-off test:</b>                                  | ≥ 0.8 N/mm <sup>2</sup>                   |
| <b>Dangerous substances:</b>                           | Comply with 5.3                           |
| <b>Reaction to fire:</b>                               | Class E                                   |

**CONTACT DETAILS**

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