

HIGHLY FLEXIBLE CEMENTITIOUS WATERPROOFING MEMBRANE FOR HORIZONTAL & VERTICAL SURFACES

DESCRIPTION

A two part acrylic polymer modified highly flexible cementitious waterproof membrane supplied in kits ready to use for the protection of concrete and mortar. **Contite FCW** provides excellent adhesion, flexibility, crack bridging ability, and durability.

USES & ADVANTAGES

Contite FCW is suitable for many waterproofing applications including for sealing swimming pools, balconies, bathrooms, wet areas, basements and as a low cost roof waterproofing system in damp conditions where other systems cannot be used.

In roofing applications **Elastodeck** acrylic roof coating may be applied over **Contite FCW** in a minimum of 2 coats to provide an aesthetically pleasing appearance and protection.

Advantages include:

- 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.
- Excellent elongation and flexibility.
- Increased frost & salt resistance.
- Easy to apply by trowel or brush.
- Minimum surface preparation needed.
- Excellent for damp-proofing basements below ground.
- 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.
- Over bridging of hairline cracks.
- Withstands light pedestrian traffic.

PROPERTIES AND COMPLIANCES

Appearance:	Grey & special colours on request
Polymer Characterisation:	Polyacrylate styrene
Mixing Ratio:	A : B = 4 : 5 by weight
Density:	A + B (mixed) Approx. 1.5 kg/l.
Coverage:	Approx. 1.5 kg/m ² /mm.
Pot life:	30 minutes at 30°C. Pot life will be shortened at higher temperatures

Initial Hardness Shore A: >50 ASTM D2240

Tensile Strength: 1.5 N/mm² ASTM D-412

Chloride Content: 0.008% ISEA Method

Adhesion to Substrate: Approx. 1.0-1.5 N/mm²
ASTM D4541

Drying Time: 1.30 to 2.00 hours
depending on temperature

Flexibility Test: No crack at 25 mm bending

Crack Bridging: No cracking at 2 mm width
at full thickness

No crack after 10 cycles of stretching
and closing at 1mm width

Elongation: > 300% (2 mm. thickness)

Resistance to Water Penetration: No water penetration
DIN 1048 pt 5:1991

** 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/m²/coat - 2 coats
DFT approx. 1-1.5 mm.

Ground Water Pressure: 1.12-1.5 kg/m²/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. Bitumen or primers should be removed by shotblasting or mechanical means, alternatively seal with a **Cormix Sealer**. Bond tests should be undertaken if the surface is already saturated with bitumen or bitumen primers. Spalled concrete should be repaired by cutting out to sound concrete and patching with **Conpatch 600**. Cracks, holes and honeycombs must be repaired prior to application (consult Cormix International Technical Department).

Areas at brickwalls 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.

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MIXING

Contite FCW 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**.

Construction joints should have **Contite Waterstop** installed and joints wall to parapet a fillet of **Conpatch 600** formed. Static cracks should be routed out & repaired with **Conpatch 600** & covered with **Contite FCW** reinforced with **Elastoclothe** embedded into the first coat. Smoothe 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 FCW**.

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 or roller at a rate of 1-2 mm. for walls and floors, depending on the expected water pressure. 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 FCW** 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 FCW** 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 FCW** 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.



Apply by brush

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 FCW 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 FCW is compatible with most forms of subsequent coatings. The material may be trowelled over after 1 day or painted with a breathable solvent free paint (non silicate) after 3 days. It is manufactured

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to use in conjunction with Elastodeck acrylic coloured coatings from Cormix.

Important Notes

The product may be coloured, however, uniformity is not guaranteed.

Do not expose to water during setting.

Prolonged setting will be apparent if in high humidity.

Mechanically damaged **Contite FCW** is easily repaired by cleaning the surface & reapplying material. Detailing must be undertaken at joints, penetrations, upstands and cracks.

Do not apply **Contite FCW** at temperatures below 5°C. At temperatures above 30°C **Contite FCW** can be applied once the concrete has reached 3 days old.

If in doubt consult Cormix International Ltd.

COMPARISON BETWEEN CONTITE FCW FULLY BONDED LIQUID APPLIED MEMBRANE & SHEET MEMBRANE

Features	Sheet Membrane	Contite FCW
• Membrane formation		At site
• Wait 28 days to apply		No
• Primer		No
• Apply to rough surface		Yes
• Lowers cost of waterproofing		Yes
• Cutting required		No
• Application / detailing easy		Yes
• Adhesion of toppings tile adhesive etc.		Excellent
• Seams / Joints		No
• Undercutting possible		No
• Fully bonded		Yes
• Crack bridging		Yes
• Salt resistance		Yes
• Carbonation resistance		Yes
• Protection boards / blocks required		No

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 shelflife is 12 months if unopened, stored free from frost, moisture and direct sunlight.

HEALTH & SAFETY

Contite FCW 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 FCW** 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 : 2008 verified by TUV Nord.



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EN 1504-2

**Protection and repair
of concrete structures :
Surface protection systems
for concrete coating
(PI, MC,IR)**

Permeability to CO₂: $s_D > 50$ m
Permeability to water vapour: $s_D < 5$ m
Capillary absorption and permeability to water: < 0.1 kg/m²h^{0.5}
Pull-off test: ≥ 0.8 N/mm²
Dangerous substances: Comply with 5.3
Reaction to fire: Class E

CONTACT DETAILS

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