

Waterproofing Systems / Capillary Waterproofing Systems

AQUAFIX C

Concentrated Crystallized Waterproofing Material

Approved by METU Chemical Eng. Dept.
according to BS 6920 Standard
for potable water contact compatibility.
Report no: 2009.03.04.718/02

DESCRIPTION

Cement-based, **crystallized concentrated** waterproofing material that can be applied in both **positive** and **negative** hydrostatic pressure directions and becomes reactive with water and moisture. It is the concentrated form of **AQUAFIX Crystallized Waterproofing Material**. It is applied alone or as the first coat before **AQUAFIX** to provide better penetration into the concrete.

APPLICATION AREAS

Negative Water Pressure:

- Interior waterproofing of basement walls and foundations, floors and horizontal joints,
- Exterior waterproofing of water tanks that are not in the ground,
- Retaining walls, tunnels, subways and elevator pits.

Positive Water Pressure:

- Groundwork and shear walls,
- Dams, irrigation canals, swimming pools and cisterns,
- Concrete pipes, tunnels and culverts.

TECHNICAL PROPERTIES

Appearance	Red colored fine powder
Powder Density	~ 1.20 kg/L
Water/Aquafix C Mixing Ratio	Shear Walls: 9 – 10 L water / 25 kg powder Cold Joints: 6.5 – 7.5 water / 25 kg powder
Resting Period	3 – 5 minutes
Pot Life	15 – 35 minutes
Setting Time	30 – 60 minutes
Service Temperature	Between -20°C and +70°C

ADVANTAGES

- Applied from the direction of both **positive** and **negative** hydrostatic pressure.
- Integrates with the concrete surface and penetrates better as it contains **high amount** and **concentrated** chemicals, it is air and water permeable, allows the structure to breathe.
- Enables to ensure 100% coverage of the surface thanks to its **red** color. Prevents corrosion and protects concrete and reinforcement iron. Non-toxic, suitable for potable water tanks.
- **Reactive**, provides waterproofing during the service life of the building.

CONSUMPTION

Under Foundations	Dry Sprinkle	3 kg/m ²
Shear Walls	Coating	Positive water pressure: 2 kg/m ² (2 layers) Negative water pressure: 2.5 kg/m ² (2 layers)
Cold Joints	Slurry	3 kg/m ²

PACKAGING

5 kg tin cans
25 kg craft bags

APPLICATION**PREPARATION OF THE SURFACE****1. UNDER FOUNDATIONS**

No surface preparation is required for sub-base dry shake application.

2. SHEAR WALLS

- The surface must be clear of dust, oil, tar, bitumen, paint, silicone, curing material, detergent and mold oils that prevent adherence.
- Repair the segregations and static cracks with **AQUAFIX EXPAN High Strength Non-shrinkage Waterproofing Structural Repair Mortar** which contain active material. Repair the dynamic (moving) cracks with FIXA's appropriate MS, hybrid or polyurethane sealants. Fill the rod holes and bevel the horizontal-vertical cold joints with **AQUAFIX EXPAN**. Block water incoming holes with **AQUASTOP**.

3. IN COLD JOINTS

The surface must be clear of any material that prevents bonding.

PREPARATION OF THE MORTAR

Add 25 kg AQUAFIX C powder to 6.5 – 7.5 L of water if it is to be used as slurry, to 9 – 10 L of water if it is to be used as a plaster. Mix for 3 – 5 minutes with a 400 – 600 rpm mixer until it is homogeneous and there are no lumps.

APPLICATION

There are 3 different application methods of AQUAFIX C:

1. **Dry Sprinkle:** For the right amount of consumption, create 2m x 3m (6m²) slabs after the molds are fixed on the lean concrete and the raft reinforcements are connected. Dry sprinkle 25 kg of AQUAFIX C over the iron reinforcement with a consumption of 3 kg/m².
2. **Slurry:** Add 25 kg AQUAFIX C powder to 6.5 - 7.5 L of water and pour the thick viscous slurry on horizontal and vertical cold joints or apply with a brush. In cases where hydrostatic pressure is high, it is recommended to use **IMPERMO ACRYL-300 Acrylic Based Water Swelling Tape** or **IMPERMO Sodium Bentonite Based Water Swelling Tape** for cold joints.
3. **Coating:** Saturate the surface with water and keep it moist on foundation side and curtain concrete surfaces. Add 25 kg of AQUAFIX C powder to 9-10 L of water and apply to the surface with a brush, with a total consumption of 2 kg/m², 1 kg/m² on each layer. Apply the second layer within approximately 3-4 hours after the first layer is set but not completely dry.

Use **AQUAFIX EXPAN High Strength Non-shrinkage Waterproofing Structural Repair Mortar** for repairs and bevelling.

CAUTION

- Application in temperatures between +5°C and +35°C will increase the product performance on shear walls and cold joints.
- Avoid application in frozen areas where there is a risk of freezing within 24 hours or in areas open to direct sun and wind.
- Do not add powder and water to the expired mortar.
- Since water pressure accelerates the formation of crystals and penetration of AQUAFIX C into the concrete, fill the structures such as water tanks with water 24 hours after the last layer of AQUAFIX C. A complete waterproofing is usually achieved after 5 – 7 days. Fill the soil at the end of this period.
- The formation of minerals in the concrete and the depth of their penetration into the concrete depend on the quality of the concrete, the capillary void ratio in the concrete and the absorbency of the surface. The better the curing with water, the better the material will penetrate into the concrete. Do not use any other curing liquid other than water.
- The crystals formed by AQUAFIX C can create an undecorative appearance. In order to prevent this, plaster when the last layer of AQUAFIX C is still wet.
- Use protective glasses and gloves during application.

SHELF LIFE

Expires in 12 months. Store unopened packages in dry environments, stacked maximum 10 on a pallet.

HEALTH AND SAFETY

As with all chemical products, contact with food, skin, eyes and mouth should be avoided during usage and storage. During the application, work wears, protective gloves, goggles and mask should be used according to the work place health regulations. If swallowed by accident, consult a doctor. In case of contact with skin, rinse with water. Keep out of reach of children.

The application instructions and technical values given for the products have been obtained in accordance with our tests and experiences in accordance with international standards at 23±2°C temperature and 50±5% relative humidity conditions. These values may vary depending on ambient conditions. High temperatures shorten the times, low temperatures lengthen them. Before starting the application, the user should test whether the product is suitable for the application and purpose. FIXA Construction Chemicals Ltd. is not responsible. This Technical Data Sheet remains valid until the next revision is published. FIXA reserves the right to change the values specified in this Technical Data Sheet, provided that the new version is published. It is the user's responsibility to check that the document is up-to-date. Please contact our sales department for more information.