

MIXGUARD CW

Surface applied crystalline water-proofing system for concrete and mortar

Mixguard CW is a unique, surface applied penetrative capillary water proofing system that provides total and permanent water proofing solution to water leakage, ingress or seepage in concrete structures or any cementitious substrates. Mixguard CW is a blend of selected cement, high-grade treated fine silica aggregates and moisture activated chemicals. In the presence of water, the active chemicals present in Mixguard CW will penetrate in to the water bearing capillaries of concrete and react with lime to produce insoluble crystals. This crystalline growth will seal the pores and hair line cracks deep in the concrete and thus effectively block further passage of water from any direction. These active chemicals remain in the structure as a catalyst to reactivate the crystallization process whenever water enters the structure through newly formed capillaries thus ensuring permanent water tightness. Rate and penetration of crystalline development varies with the density and surface absorption of the concrete, but the crystals will penetrate to the depth to which water is present.

Crystalline formation migrates throughout the pores and capillary tracts of concrete even against strong hydrostatic pressure.

Appropriation

Water Retaining Structures like

Water tanks/ towers
Reservoirs and canals
Swimming pools and concrete pipes
Water treatment areas
Harbors and dams

Water resisting structures like

Basements
Retaining walls, bridge decks and foundations
Tunnels and underground car parks
Inspection pits
Sea defense walls and jetties

Characteristics

Provides total and permanent waterproofing by becoming an integral part of the structure

Active ingredients of the system remain for a long period

Can withstand both positive and negative pressure.

Non toxic, suitable for potable water tanks

Protect concrete and reinforcement from corrosion due to water borne substances like chlorides and sulphates

Improve resistance of concrete structures against weathering and chemical attack

Seals hairline cracks up to 0.4mm

Does not require protection during backfilling or placing reinforcement

Can be applied in three methods

As surface coating for new and old concrete structures

As an admixture in the time of batching

As a dry shake material to the new horizontal surface

Technical Data & Properties

Appearance: Powder

Colour: Cement grey

Standards conforms to: ASTM E 329-95

Bulk density: 1.5 kg/m³, approx.

Setting time: 2 hours, approx

Penetration rate: 2mm / 7 days

Particle size: 40-150 microns

Compressive strength: 57.5 N/mm² (on Mixguard CW modified mortar, BS 1881)

Flexural strength: 10.3 N/mm² (on Mixguard CW modified mortar BS6319)

Application temperature: 5 °C to 55 °C

MIXGUARD CW

Surface applied crystalline water-proofing system for concrete and mortar

Product Management

Surface Preparation: Surface to be treated must be free from dust, oil, grease, residual curing compound, release oil, paints etc. Surface should have an open capillary system. As the active chemical ingredients require moisture, the surface should be pre wetted well. High pressure water jetting is the preferred method of surface preparation because mechanical cleaning, surface saturation and substrate roughening are simultaneously achieved. Static cracks should be filled with Mixguard CW modified mortar and cured. Prior to the application of Mixguard CW, ensure that the concrete surface is damp, but free of standing water

Mixing: Slurry coat - Always add water to Mixguard CW and not vice versa. Add 1 part of water to 2 to 2.5 parts of powder by volume, to get a thick creamy consistency

Render or Mortar - Mixguard CW modified mortar is made by mixing Mixguard CW, cement and sand at a ratio of 1: 1: 4. First dry mix, and then add water to get a mortar consistency. Mixguard CW modified mortar should be used within 20 minutes after mixing

Coverage:

Surface coating: 0.75kg/m²/coat
Slurry coat: 1kg/m²/coat
Dry shake: 1to 2kg/m²
Render coat: 10kg/ m² @4.5mm thick

Applications: Mixguard CW is normally applied by brushes or by appropriate power spray equipment. Apply the material in two coats at right angles. The second coat must be applied whilst the first coat is firm but fresh (usually 3 to 4 hours after the first coat). The slurry should be used within 20 minutes after mixing. If the mixture starts to set, do not add more water, but stir well to improve the workability. For further protection, apply plaster or cement/sand mortar, when Mixguard CW is still fresh and tacky. Clean all the tools with water.

Curing: The Mixguard CW must be prevented from drying out too rapidly and should be kept damp for 5 to 7 days. Mist spraying with water and covering with polythene sheet is effective. Curing compounds are unsuitable for use with Mixguard CW system. Protect from weathering, sun, frost and wind for a similar minimum period. Tanks and other water retaining structures may be filled after 72 hours on application as crystal growth is accelerated by water pressure

Note - Mixguard CW shall not be applied at temperatures below 5 °C

Packing & Storage

Mixguard CW is available in 25 Kgs bag. Mixguard CW should be stored in cool, dry and shaded warehouses. Shelf life is 12 months when stored under cover, out of direct sunlight, protected from extreme temperatures and as per recommendations. In extreme tropical climate, the product must be stored in cooled ambience. Excessive humidity and over exposure to UV will result in the reduction of shelf life.

Health & Safety

Mixguard CW contains no hazardous substances. As with all construction chemical products, caution should always be exercised. Protective clothing such as gloves and goggles shall be worn whilst handling. Wearing PPE recommended for maximum safety. Reseal all containers after use. 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. For more details, please refer to the MSDS released on each Fab product.

Technical information given in this datasheet is true and exact to the best of our knowledge, laboratory upshot and hands-on application. The datasheets of all products are revised/updated regularly and hence ensure that the latest release is used for reference and recommendation. The date of the publishing is as in this sheet. All data are mean of numerous tests, assessment and analysis conducted under laboratory ambience. Climatic disparity in temperature, humidity, etc. and porosity of substrate may impinge on the values.

Group Head office:

PYCHEM Co. L L C
Post Box 23940, Sharjah.
Te: +971 6 5420414 / 5431636
Fax: +971 6 5421446
Mail: mail@fab-cc.com
fabchem@gmail.com

Under Technical Collaboration with
MIX UK Limited
Cherry Tree House, Cherry Tree Lane
Rostherne, Cheshire, WA143RZ
Web: www.mixuk.com

Head office:

T33A/1, Thyambhava Houses
Kalapetty road, Coimbatore – 14
Tel: 0422 3222245
Fax: 0422 2625207
Mail: mail@fab-cc.com
fabchem@gmail.com

THE CONSTRUCTION CHEMIST



FABCHEM



PYCHEM



MIX UK LTD