

Cormix® H₂O Stop

LIQUID INTEGRAL WATERPROOFING ADMIXTURE BY CRYSTALLIZATION

DESCRIPTION

Cormix H₂O Stop is a high-grade, easy-to-use integral waterproofing liquid admixture that also provides concrete corrosion protection. Using advanced nanotechnology, it chemically modifies the cement matrix by reacting with the cement paste to reduce the size of pores and capillaries. This reaction forms an insoluble crystalline structure within the concrete, permanently sealing it against water penetration.

USES & ADVANTAGES

Cormix H₂O Stop Liquid is suitable for a wide range of concrete waterproofing and corrosion protection applications, including Basements, Water tanks and reservoirs, Dams, Wastewater Treatment Plants, Tunnels, Marine Structures, Concrete Highways, Water Treatment Plants, Swimming Pools etc.

Advantages include:-

- Seals micro cracks. Can seal hairline cracks up to 0.5 mm.
- Reduces shrinkage
- Concrete waterproofed throughout.
- Improved durability. Increases concrete strength
- Protection against Chloride and sulphate ingress.
- Withstands hydrostatic pressure.
- Improves chemical, sulphate and carbonation resistance.
- Fast tracks construction.
- No installation costs, seams or joints.
- Does not rely on bond to work.
- Permanent waterproofing.
- Integral waterproofer.
- Non toxic. No V.O.C.s.
- Reduces opportunity for freeze thaw damage.
- Improves workability and strength.
- May reduce existing admixture dosage.
- No costly surface preparation.
- Added to concrete not constrained by weather conditions.
- Liquid form does not clump as powders and easy to dose.
- Enhances hydration process.
- Environmentally friendly.

Advantages Over Powder Crystalline Admixtures:-

- No splitting of bags or bag waste
- No dust
- No premixing no dosing by hand
- Automatic dosing by dispenser /load cell
- RMC plant computer generated dose confirmation
- Excellent dispersion
- No cement used in product reduces CO₂ emissions

Ecology and Sustainability:-

- Enhances the overall performance of the structure extending its life with full depth protection.
- Maintenance free
- Self healing over life of structure
- A green label product contributing to LEED certification

- Bulk delivery no packaging waste
- Fully recyclable with concrete
- Reduced CO₂ emissions No VOCs
- Reduces construction time
- Reduces heat sink affects

PROPERTIES

Appearance :	Liquid
Colour:	Transparent
pH :	13-14
Specific Gravity :	Approx. 1.21-1.23
Chloride Content :	Nil
BS EN 480-10	

DOSAGE

Cormix H₂O Stop - Liquid

Cormix H₂O Stop is added to the concrete at the time of batching at dosages of 0.8 - 1 litre per 100 kg of total cementitious material by automatic dispensers.

***Note :** Cormix H₂O Stop should be tested in trial mixes to determine the optimum dosage and any necessary changes to existing additive dosages. Do not use without checking workability, slump retention and retardation in advance.*

OVERDOSING

Overdosing of **Cormix H₂O Stop** will result in increased workability and possibly more rapid set. In the case of accidental overdosing check strengths and setting times before stripping forms.

Overdosing normally will have no detrimental long term side effects as long as cured correctly with water before stripping forms. In general 28 days strengths would be improved. If in doubt contact Cormix Technical Department.

STANDARDS

- Compressive strengths at 28 days according to ASTM C 39 showed strength more than control.
- Chloride diffusion is reduced significantly when measured according to ASTM C1202
- **Cormix H₂O Stop** complies to EN 934-2 :2009 A1:2012 table 9-water resisting admixtures.
- BSEN 934-1 : The standard for concrete mortar and grout - common requirements.
- BSEN 12390 Part 8 : 2009 - Testing hardened concrete : Depth of penetration of water under 5 bar pressure for 72 hours.
- **Cormix H₂O Stop** when used on Concrete is suitable for Potable Water Contact : BS 6920 -1-2000.
- **Cormix H₂O Stop** is capable of Self-Healing of Cracks upto a Width of 0.5 mm.
- Comply to JIS A 1404 : Depth of Water penetration - Less than Control.

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- Comply to BS 1881-P122 : Water Absorption - Less than Control.
- Air Content : Test mix $\leq 2\%$ by volume above control according to BSEN 12350-7 : 2009 and BSEN 12350-1 : 2009.
- Compressive Strength : Test mix $\geq 85\%$ of control according to BSEN 12350-7 : 2009 and BSEN 12390-3 : 2009.
- Capillary absorption :
Test mix $\leq 50\%$ by mass of control (7 days)
Test mix $\leq 60\%$ by mass of control (90 days)
According to BSEN 480-5 : 2005 and BSEN 480-1/BSEN 196-1.
- Water soluble chloride : $\leq 0.1\%$ by weight complies to BSEN 480-10 : 1997.
- Total chloride content : $\leq 0.1\%$ by weight complies to ISO 1158 : 1998.
- Alkali content : $< 15\%$ by weight (liquid) complies to BSEN 480-12 : 1998
- Silica content : $< 1\%$ by weight (liquid) complies to BSEN 196-2.
- Dry material content : $> 30 \pm 5\%$ by weight (liquid) complies to BSEN 480-8 : 2012.
- Density : 1.21-1.23 kg/litre (liquid) complies to BS 4522 : 1988.
- pH : 13-14 complies to ISO 4316 : 1977
- Complies to (WRAS) water regulations advisory scheme specification according to BS6920-Part 1 : 2014
- Complies REACH requirements as per article 33 (1) of the REACH REGULATION (EC 1907/2006).

PACKAGING

Cormix H₂O Stop (Liquid) is available in 25 ltr Pails, 200L drums, 1,000 L IBC and bulk deliveries.

STORAGE & SHELF LIFE

The product must be stored shaded at a minimum temperature of 45°F (7°C). Shelf life is one year when stored under proper conditions in original unopened packaging. Agitate the liquid form before use and protect from freezing.

HEALTH & SAFETY

Cormix H₂O Stop is alkaline. Protect hands with rubber gloves and wear safety goggles during mixing & application. Avoid contact with skin or eyes. Should contact occur, flush copiously with water. If irritation persists, contact a physician.

TECHNICAL SERVICE

Technical assistance including mix design preparation and supervision on site during incorporation of **Cormix H₂O Stop** is available by contacting Cormix International Limited.

QUALITY ASSURANCE

ISO 9001 : 2015 verified by TUV Nord.
ISO 14001 : 2015 verified by Lloyd's Register International



Cormix International Limited
89 Romklao Rd, Sansab,
Minburi, Bangkok 10150
EN 934-2
Water Resisting Admixtures

Capillary absorption:	
7 days curing:	$\leq 50\%$
90 days curing:	$\leq 60\%$
Compressive Strength:	$\geq 85\%$
	28 days
Air Content in fresh concrete:	$\leq 2\%$

DISCLAIMER

Performance data is achieved testing in accordance with International Standards. Testing by others may result in different results from those published as a result of external factors such as poor sampling, incorrect mixing, varying temperatures, curing, crushing procedures etc. Cormix does not take responsibility nor need to defend others testing that does not achieve the published data. The user must test the products suitability for the intended application and purpose. Cormix reserves the right to change the properties of the product. Site conditions and differences in materials are such that no warranty or fitness for a particular purpose, nor liability can be inferred from the published data sheet, written recommendations or from other advise offered.

CONTACT DETAILS

Cormix International Limited
89 Romklao Rd., Sansab, Minburi, Bangkok 10510
Tel. (66 2) 917 3955-8
Website: <http://www.cormix.com>
Email Address: info@cormix.com