Cormix ® H_2O Stop

POWDER FORM INTEGRAL WATERPROOFING ADMIXTURE BY CRYSTALLIZATION

DESCRIPTION

A high grade easy to handle integral waterproofing admixture for both waterproofing and concrete corrosion protection using unique nanotechnology to chemically modify the cement matrix by reacting with the cement paste to reduce pore & capillary size.
The reaction between **Cormix H_2O Stop** and cement paste produces a non-soluble crystalline structure throughout the pores & capillaries permanently sealing the concrete.

USES & ADVANTAGES

Uses include for all types of waterproofing and concrete corrosion protection in basements, water tanks, reservoirs, dams, wastewater plants, swimming pools, water treatment plants, tunnels, marine structures, concrete highways etc.

Advantages include:-

- Seals micro cracks. Can seal hairline cracks up to 0.5 mm.
- Concrete waterproofed throughout.
- Improved durability. Increases concrete strength
- Protection against Chloride and sulphate ingress.
- Withstands hydrostatic pressure.
- Improves chemical 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.Cs.
- 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.
- Enhances hydration process.
- Environmentally friendly.

PROPERTIES

Appearance :	Powder
Colour :	Grey Powder
pH :	13-14
Specific Gravity :	-
Chloride Content : DIN EN 480-10	Nil
Bulk Density :	1.25-1.35

APPLICATION

Cormix H_2O Stop powder should be dosed at of 0.8-1 kg per 100 kg of total cementitious material. As a guide line the following should be followed :

Central mixing operation : -
Mix the **Cormix H_2O Stop** powder with water to form a flowing slurry 25 kg of powder to 7.5-8 kg of water. Pour the mixture into the ready mix lorry. Mix the concrete as normal in the plant reducing the water content to account for that mixed with **Cormix H_2O Stop** pour the concrete into the lorry & mix for at least 5 minutes to ensure good distribution of **Cormix H_2O Stop**.

Dry batch ready mix concrete operations : -
Add the required quantity of **Cormix H_2O Stop** in powder form to the ready mix lorry. Drive the R.M.C lorry under the batch plant & add 60% of the water with 150-250 kg of aggregate mix for 2-3 minutes to ensure good distribution of **Cormix H_2O Stop**. Add the remaining materials to the lorry as normal practice.

Precast concrete plants :-
Add the **Cormix H_2O Stop** to the aggregate and sand mix for 3 minutes before adding cement & water.

***NOTES**:*

- *Good dispersion of the admixture is important to get a homogeneous mix. Therefore, do not add **Cormix H_2O Stop** powder directly to wet concrete as this may result in clumping & poor dispersion.*
- ***Cormix H_2O 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 H_2O 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 day strengths would be improved. If in doubt contact Cormix Technical Department.

STANDARDS

- **Cormix H_2O Stop** complies to EN 934-2 :2009 A1:2012 table 9-water resisting admixtures.
- Complies to BSEN 12390 Part 8 : Depth of water penetration less than Control.
- **Cormix H_2O Stop** is capable of Self-Healing of Cracks upto a Width of 0.5 mm.
- Complies 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.

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- Capillary absorption :
  Test mix ≤ 50% by mass of control (7 days)
  Test mix ≤ 60% by mass of control (90 days)
  According to BSEN 480-5 : 2005 and BSEN 480-1/BSEN 196-1.
- Water soluble chloride : ≤ 0.1% by weight complies to BSEN 480-10 : 1997.
- Total chloride content : ≤ 0.1 % by weight complies to ISO 1158 : 1998.
- Alkali content : <3% by weight (powder) complies to BSEN 480-12 : 1998
- Silica content : <50% by weight (powder) and < 1% by weight (liquid) complies to BSEN 196-2.
- Dry material content : > 95% by weight (powder) complies to BSEN 480-8 : 2012.

PACKAGING

Cormix H_2O Stop (Powder) is available in 25 kg paper bags or 25 kg plastic pails.

STORAGE & SHELF LIFE

The product must be stored shaded at a minimum temperature of 45ºF (7ºC). Shelf life is one year when stored under proper conditions in original unopened packaging.

HEALTH & SAFETY

Cormix H_2O Stop is highly 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 H_2O 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

DCL PRODUCT CONFORMITY BS EN 934-2 Certificate No. CL19020718

Cormix International Limited
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EN 934-2
Water Resisting Admixtures

Capillary absorption:	
7 days curing:	≤ 50 %
90 days curing:	≤ 60 %
Compressive Strength:	≥ 85 %
	28 days
Air Content in fresh concrete:	≤ 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

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