Cormix ® H_2O Stop

LIQUID AND 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. **Cormix H_2O Stop** is available in two forms liquid or powder.

USES & ADVANTAGES

Uses include for all types of waterproofing and concrete corrosion protection in basements, water tanks, roofs, reservoirs, dams, waste water 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.
- 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.
- 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 does not clump as powders and easy to dose.
- Enhances hydration process.

PROPERTIES

	Liquid	Powder
Appearance :	Liquid	Powder
Colour:	Transparent or Blue	Grey Powder
pH :	13-14	13-14
Specific Gravity :	Approx. 1.21-1.23	-
Chloride Content : DIN EN 480-10	Nil	Nil
Bulk Density :	-	1.25-1.35

APPLICATION

Cormix H_2O Stop - Liquid

Cormix H_2O 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.

Under certain conditions the dosage used may be 2-3 litre per 100 kg of total cementitious material to meet the specific requirements of a project. For the optimum dosage consult Cormix.

Cormix H_2O Stop - Powder

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 H2O Stop powder directly to wet concrete as this may result in clumping & poor dispersion.*

Under certain conditions the dosage used may be 2-3 kg per 100 kg of total cementitious material to meet the specific requirements of a project. For the optimum dosage consult Cormix.

***Note : 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. Agitate before use the liquid version.*

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.

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STANDARDS

Permeability

- According to Permeability tests CRD 48-73 **Cormix H_2O Stop** shows no leakage at 7 days compared to the control which showed continuous leakage. Pressure tested to 150 m. head of water. Complies to BSEN 12390-8

Compressive Strength

- Compressive strengths at 28 days according to ASTM C 39 showed strength increases of 10% compared to the control.

Chemical Resistance

- Sulphuric acid test resistance shows a significant reduction in percentage weight loss compared to the control. Resistant to alkali / acid conditions pH range 3-11 constant contact.

Sulphate Resistance

- Sulphate resistance is significantly improved when measured by both weight loss and length gain.

Freeze Thaw Resistance

- When the treated concrete measured to ASTM C666-97 Freeze Thaw Durability showed a marked reduction to attack over the control mix.

Rapid Chloride Penetration Test

- Chloride diffusion is reduced significantly when measured according to ASTM C1202

PACKAGING

Cormix H_2O Stop (Liquid) is available in 25 ltr Pail & 200 ltr drum.
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. Agitate the liquid form before use and protect from freezing.

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.

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1012-CPD-0102
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 %

CONTACT DETAILS

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