

#### DESCRIPTION

**Cormix CI** is a water based organic corrosion inhibiting concrete admixture for use in reinforced concrete and repair mortars. When **Cormix CI** comes into contact with steel it has an ionic attraction to it forming a protective layer. The CI affinity to metal is greater than water, chlorides and other corrosive materials. **Cormix CI** provides protection to the reinforcement acting as a corrosion inhibitor extending the life expectancy of the structure. It may be used in conjunction with the **Contite crystalline series** of products, which provide concrete corrosion protection giving a total concrete protection solution.

#### USES & ADVANTAGES

**Cormix CI** is used in concrete in areas where the reinforcement is in risk of corrosion. It has been developed especially for use where chlorides are in evidence. Typical structures that would incorporate this material are as follows :-

Marine structures, subways in salt bearing ground water, bridges, waste water plants, tunnels, industrial plants, structures exposed to deicing salts such as car parks etc.

##### Advantages include:

- Reduction of both anodic & cathodic reaction in the electrochemical corrosion process. (Ambiodic)
- Provides a passive film delaying the start of corrosion and reducing the rate.
- Particular protection against chloride attack.
- No effect on properties of concrete in wet & dry state.
- Non toxic.
- No effect on hydrogen embrittlement of prestressing cables.
- Protection against reinforcement corrosion.
- Used in conjunction with **Contite** crystalline corrosion protection provides total concrete protection.
- Enhances the service life of concrete structures in corrosive environments e.g. chlorides and carbonation.
- Meets international standards including ASTM G102 and ASTM C1582.
- Low dosage.
- Migrates through porous concrete.
- Earns LEED credits.

#### PROPERTIES AND COMPLIANCES

**Appearance :** Clear to light yellow

**Density :** 1.03 ± 0.02 kg/ltr.

**pH :** 9-11.

#### STANDARD

PROPERTIES	STANDARD	RESULT
Density	ASTM C138	As control
Setting Times	ASTM C403	Slight delay
Compressive Strengths	ASTM C192	Improved
Flexural Strengths	ASTM C78	Improved
Air Content	ASTM C231	As control
Slump / Workability Retention	ASTM C143	As control
Corrosion Resistance	ASTM C1582 ASTM G102 ASTM G180	As control Complies with requirements

ASTM G102 - CORROSION RESISTANCE PROPERTIES		
Product	I <sub>corr</sub> (µA/Cm <sup>2</sup> )	Corrosion rate (mpy, mm/y)
Control	887.72	401.0504, 10.1819
<b>Cormix CI</b>	84.77	38.7838, 0.9847

Note : **Cormix CI** reduces the Corrosion rate by 90% when compared to control.

#### DOSAGE

The dosage range is 0.6-1.2 litres/m<sup>3</sup> of concrete. Recommended dosage = 0.6 litre/cubic metre of concrete.

#### PACKAGING

25 litre & 200 litre plastic drums.

#### STORAGE

Protect from frost and direct sunlight store at 5°C-35°C

#### SHELF LIFE

12 months stored in original unopened packaging at temperatures not exceeding 35°C or lower than 5°C.

#### COMPATIBILITY WITH OTHER ADMIXTURES

**Cormix CI** is compatible with most Cormix admixture proving trials are recommended to confirm the results.

**Cormix® CI****CORROSION INHIBITING CONCRETE AND MORTAR ADMIXTURE****DOSING**

Cormix CI is dosed into the concrete mixes at the same time as the water. It may also be added at the point of placement with at least one minutes extra mixing, before discharge check for uniform consistency.

The W/C ratio should be adjusted according to quantity of **Cormix CI** added to the mix. Follow standard good practise for producing high quality, concrete, placing, compaction and curing.

**HEALTH & SAFETY**

**Eye contact :** Immediately flood the eye with plenty of water for at least 15 minutes, holding the eye open. Eyelids should be held away from the eyeball to ensure thorough rinsing. Obtain medical attention urgently.

**Skin contact :** Wash skin thoroughly with soap and water.

Obtain medical attention if blistering occurs or redness persists. Contaminated clothing should be washed or dry-cleaned before re-use.

**Ingestion :** Do not induce vomiting. Wash out mouth with water. If vomiting occurs naturally, lean victim forward to reduce risk of aspiration.

Obtain medical attention urgently

**Inhalation :** Remove from exposure. In cases of possible respiratory irritation or if feeling unwell due to prolonged exposure, obtain medical attention.

**TECHNICAL SERVICE**

The Cormix International Technical Service Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

**QUALITY ASSURANCE**

ISO 9001 : 2015 verified by TUV Nord.

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

**CONTACT DETAILS****Cormix International Limited**

89 Romklao Rd., Sansab, Minburi, Bangkok 10510

Tel. (66 2) 917 3955-8

Fax. (66 2) 917 3959

<http://www.cormix.com> E-mail : [info@cormix.com](mailto:info@cormix.com)