



KEM CORPRO 710

Corrosion Inhibiting Admixture for Reinforced Concrete

Ref: CA/OA-V4-0115

Description

KEM CORPRO 710 is a liquid corrosion inhibiting, concrete admixture. It is formulated to protect embedded reinforcing steel from corrosion, which helps in extending the service life of concrete structures.

Uses

- In good quality concrete, embedded steel reinforcement is protected by the highly alkaline environment, which deposits a passivating layer of iron oxides around the steel.
- Once this passivating layer breaks down under the influence of chloride penetration, carbonation or other mechanisms, corrosion may begin.
- KEM CORPRO 710 is a dual purpose Corrosion inhibiting admixture which protects both the anodic and cathodic parts of the corrosion. It is a combination of aminoalcohols, aminocarboxylates and inorganic inhibitors.
- Due to its high vapor pressure, KEM CORPRO 710 penetrates through concrete seeking the steel reinforcement. It is then adsorbed onto the steel surface where it forms a continuous protective film around the steel. This film acts as a physical barrier to chlorides and other deleterious substances.
- The basic ingredients in KEM CORPRO 710 have high affinity to steel due to this it is also able to displace chloride ions which are already on the metal surface thus protecting concrete from chloride induced corrosion.
- KEM CORPRO 710 is recommended for all steel-reinforced concrete exposed to corrosive environments including, steel reinforced concrete bridges, highways and express ways exposed to deicing salts or corrosive environments.

- Concrete in or near marine environments, parking garages, piers, piles and concrete dock structures.

Advantages

- Easy to add into the ready-mix or precast concrete.
- Dual action results in considerable delays in initiation of corrosion and reduces the overall corrosion activity.
- Extended service life of concrete structures
- Reduced maintenance costs.
- Effective protection from chloride induced corrosion even at varying chloride concentrations.
- Protects even when high concentrations of deicing or marine salts are available.
- No effect on the rheological properties of plastic concrete at normal dosage.
- No effect on properties of hardened concrete, such as compressive strengths, permeability, etc.

Typical Properties

Appearance	: Yellowish hazy liquid
Specific Gravity	: 1.06 +/- 0.02 gm/ml
Chloride Content	: 0.2 % Max.
pH	: Min 9.00

Standards

ASTM G109 Modified

Direction for use

Mixing: Add the correct dose of KEM CORPRO 710 at the concrete plant. For best results, it shall be added directly to freshly mixed concrete.

KEM CORPRO 710 may also be added to a ready mix truck at the concrete plant or at a job-site. Minor adjustments in air entrainment may be necessary. Chembond recommends conducting site trials before finalizing the mix design.



The addition of liquid admixture increases the water to cement ratio in the concrete. Therefore, the mix water shall be reduced by an equivalent amount to compensate this increase.

Do not pre-mix with dry cement. When used in combination with other admixtures, care must be taken to dispense each admixture into the mix separately. Do not pre-mix with air entraining agents.

Precautions

Avoid direct contact. Wear personal protective equipment (chemical resistant goggles/ gloves/ clothing) to prevent direct contact with skin and eyes. Use only in well ventilated areas. Wash thoroughly with soap and water after use. Remove contaminated clothing and wash properly before reuse.

Packaging

KEM CORPRO 710 is supplied in 5, 20 kg pails and 210 kg drums.

Storage and Shelf life

Storage: Should be stored between 4°C to 35°C. Protect from freezing.

Shelf Life: 12 months

Dosage

For Moderate to low chloride concentrations: 2 to 3 kg /m³ of concrete.

For high chloride concentration: 3 to 5.5 kg /m³ of concrete.

For sever marine exposure / extremely high chloride concentration: 5.5 to 8.5 kg /m³ of concrete.

Health & Safety Precautions

Irritant: Skin and eye irritant. Vapors may cause respiratory tract irritation. Use only with adequate ventilation. Use of safety goggles and chemical resistant gloves is recommended. Remove contaminated clothing.

Eyes: Hold eyelids apart and flush thoroughly with water for 15 minutes.

Skin: Remove contaminated clothing. Wash skin thoroughly for 15 minutes with soap and water.

Inhalation: Remove person to fresh air.

Ingestion: Do not induce vomiting. Drink plenty of water. In all cases, contact a physician immediately

Technical Service

Chembond has established itself in various fields on the basis of its dependable technical service. For this purpose, we maintain a well equipped laboratory for research & quality assurance of all products. Our experienced personnel are always on call and would always be available for product demonstrations and product performance monitoring.

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