CORROTECH BCI

TECHNICAL DATA SHEET

BIPOLAR CORROSION INHIBITING CONCRETE PENETRATING ADMIXTURE

Description

CORROTECH BCI is a bipolar corrosion inhibiting liquid concrete admixture for use in reinforced concrete and mortar. It acts as a corrosion inhibitor for the steel reinforcement. By using CORROTECH BCI, the life expectancy and durability will be substantially.

Uses

CORROTECH BCI is used as corrosion inhibiting admixture for all reinforced concrete and not limited to

- Below ground structure such as Pile, pile cap, mat foundation where chloride threshold value is more in the soil.
- Bridges and flyovers
- Structures in coastal areas and submerged conditions
- Power plants
- Steel plants
- High rise buildings
- Structures in sea water
- Pre-cast Elements
- Tunnels and underground structures

Advantages

CORROTECH BCI is a low dosage admixture having

- Nitrites free
- Improves durability of the structure
- Used as a admixture: Dosage is independent of anticipated chloride levels
- Ensures steel protection even in the hardened concrete
- Does not get consumed by cement hydration
- No adverse effect on slump retention and compressive strength
- Independent reports tested to International standards

Technical Data

• Appearance	:	Pale straw yellow colour liquid
• pH	:	10±1
• Specific Gravity at 27°C	:	1.04±0.02

Standard Complaince

CORROTECH BCI complies to various standards such as ASTM G1,JIS 1535(modified), IS 9103 for compressive strength, AASHTO- T259, ASTM G3 for steel bars embedded in concrete, ASTM G109*, ASTM G180 and ASTM C1582M.

Compatibility

CORROTECH BCI is compatible with PCE and SNF based admixtures, in addition to all types of cement, OPC, PPC, OPC & GGBFS and OPC & Flyash, micro silica.

CORROTECH BCI is also compatible with air entraining, waterproofing, shrinkage reducing concrete admixtures.

Dispensing

The correct quantity of CORROTECH BCI should be measured by means of a recommended dispenser. The admixture should then be added to the concrete with the mixing water to obtain the best results.
Contact your local FCSC office for advice regarding suitable dispensing equipment and its installation.

Action Mechanism

CORROTECH BCI absorbs onto the reinforcing steel and forms a uniform protective fi lm covering both cathodic and anodic activesites on the steel surface. This protective film prevents access of chlorides, moisture and oxygen to the steel and thereby significantly slows down the rate of corrosion.

Application Methodology

CORROTECH BCI is mixed with the gauging water or added at the same time into the concrete mixer. It may also be added to the concrete in the transit mixer at the point of discharge. In this case, an additional mixing time of at least 1 minute per m3 concrete must be observed.
Before discharging it, check the concrete visually for uniform consistency.
CORROTECH BCI Bipolar is not to be mixed with dry cement.

Packaging

CORROTECH BCI is available in 240 Kg barrels.

CORROTECH BCI

TECHNICAL DATA SHEET

BIPOLAR CORROSION INHIBITING CONCRETE PENETRATING ADMIXTURE

Dosage

Recommended dosage: 0.5 - 3% by weight of cement /binder depending upon the severity of the corrosion environment.

Cleaning and disposal

Spillages of CORROTECH BCI should be absorbed onto sand, earth or vermiculite and transferred to suitable containers. Do not allow CORROTECH BCI to enter rivers or drains. The disposal of excess or waste material should be carried out in accordance with local legislation under the guidance of the local waste regulatory authority.

Safety precautions

CORROTECH BCI is toxic and should not be swallowed or allowed to come into contact with skin and eyes. Wear suitable protective gloves and goggles.
Splashes on the skin should be removed with water. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately - **do not** induce vomiting.
For further information, please consult Material Safety Data Sheets for the above products.

Fire

CORROTECH BCI is water based and non-flammable but should be stored away from combustible materials.

Note

All Technical Data Sheets of FIRSTCHOICE SPECIALITY CHEMICALS are updated on regular basis; it is the user's responsibility, to obtain the most recent issue. Field services where provided, does not constitute supervisory responsibility, for additional information contact our local representative.

Disclaimer

Whilst any information contained herein is true, accurate and represents our best knowledge and experience, no warranty is given or implied with any recommendations made by us, our representatives or distributors, as the conditions of use and the competence of any labour involved in the application are beyond our control.