

NOVATECH BCIA

Bipolar Concrete Penetrating Corrosion Inhibiting Admixture

Description

Novatech BCIA is a bipolar concrete penetrating corrosion inhibiting admixture that protects rebars from corrosion induced by chloride ions as well as due to carbonation of concrete. It is a blend of selected amines through research which preferentially provide protection to steel in both liquid and vapour phases. The vapours penetrate even through the hardened concrete towards steel due to strong affinity.

Novatech BCIA also enables concrete porosity through water reduction and thereby improves durability of concrete. It forms a unimolecular protective layer on the surface of steel thereby inhibiting corrosion.

Applications

- ✓ Steel reinforced concrete in or near marine environment
- ✓ Piers, piles, and concrete dock structures
- ✓ RCC structures exposed to corrosive environments
- ✓ Bridges, highways, chlorinating plants, sewerage systems
- ✓ Building facades and balconies

Advantages

- ✓ Simultaneous cathodic and anodic protection of steel
- ✓ High penetrating power resulting in total protection of rebars thereby improving durability of the structure
- ✓ No adverse effect on properties of hardened concrete
- ✓ Effective even in presence of high amount of chlorides
- ✓ Eco-friendly, nitrite and chromate free
- ✓ Alkaline in nature
- ✓ Does not get consumed by cement hydration
- ✓ No adverse effect on slump retention and compressive strength
- ✓ Used as an admixture: Dosage is independent of anticipated chloride levels

Action Mechanism

Novatech BCIA absorbs onto the reinforcing steel and forms a uniform protective film covering both cathodic and anodic active sites 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.

Standard Compliance

Novatech BCIA has been tested in accordance with various standards such as ASTM G1, ASTM G3, JIS 1535 (modified), IS 9103 for compressive strength, AASHTO T259, ASTM C1202 and ASTM G109*.

Typical Properties

Appearance	Colourless to pale yellow liquid
pH	10 to 12*
Relative Density	1.02 to 1.04*
Chloride content	Nil to BS 5075

* The uniformity parameters like specific gravity, pH, chloride content etc., will vary for specific customer requirements and mix design. Please refer to our MTC issued for specific product configuration for measuring our product parameters that will be constantly and consistently administered.

Compatibility

Novatech BCIA is compatible with PCE and SNF based admixtures, in addition to all types of cement, OPC, PPC, OPC & GGBFS and OPC & Flyash, micro silica. **Novatech BCIA** is also compatible with air entraining, waterproofing, shrinkage reducing concrete admixtures.



Before Test



After Test

Latitude: 13.010304
Longitude: 80.206033
Elevation: 30.76±1 m
Accuracy: 10.9 m
Time: 03-19-2024 12:48
Note: cci sample 1

Powered by NoteCam

Dosage

2 kg/m³ of concrete.

Packaging

200 kg HDPE barrels.

Storage & Shelf life

12 months if stored above 5°C and below 50°C in the tightly sealed original containers.

Fire

Novatech BCIA is water-based and nonflammable.

Health & Safety

- ✓ Wear hand gloves, safety shoes and safety goggles while using and handling the product.
- ✓ In case eyes or mouth are affected, wash with plenty of clean water and seek medical treatment immediately.

Before use, refer to the Material Safety Data Sheet (MSDS). The MSDS is available on www.ccichemicals.in or contact us at info@ccichemicals.in.

Registered Office	Regional Office	Chennai Plant	Mumbai Plant
Office No. 210 Shah Heritage Commercial CHS Plot No. 9, Sector 48, Seawood Navi Mumbai – 400 706 Maharashtra, India Mobile: +91 93247 27785 E-mail: kashinath.bera@ccichemicals.in	'LAKSHMAN MANERE' Old No. 17/2, New No. 42/2, R Block 6 th Main Road, Anna Nagar West Chennai – 600 040 Tamilnadu, India Mobile: +91 98400 73183 E-mail: durai.murugan@ccichemicals.in	No. 1, Perumal Koil Street Azhinjivakkam Sriperumpudhur Thiruvallur – 602 105 Tamilnadu, India	Plot No. A-51 Taloja Industrial Area MIDC, Taloja Navi Mumbai – 410 208 Maharashtra, India