BUILDING CHEMISTRY INDUSTRY

BC tec Corrosion inhibitor Application Method Statement

Introduction:

BC tec corrosion Inhibitor admixtures are used to protect embedded steel reinforcement from corrosion, enhancing the durability of concrete structures, especially in aggressive environments (e.g., marine environments, de-icing salt exposure). These admixtures are incorporated into the concrete mix to prevent or mitigate corrosion by forming a protective layer on the steel surface or reducing the ingress of chlorides and moisture.

Purpose:

To outline the procedure for the proper application and integration of BC Tec corrosion Inhibitor admixtures in concrete to ensure the effectiveness of the admixture in preventing corrosion of steel reinforcement.

Materials and Equipment:

Corrosion-inhibiting admixture BC tec corrosion Inhibitor
Concrete batching plant
Mixing equipment (e.g., concrete mixers)
Testing equipment (slump cone, temperature gauge, etc.)
Personal protective equipment (PPE)

General Safety Precautions:

Ensure that workers handling the material wear appropriate PPE (gloves, masks, goggles).

Store the admixture in a cool, dry place, away from direct sunlight and moisture.

Follow safety data sheets (SDS) for handling, storage, and emergency procedures.

5. Application Process:

Step 1: Preparation

Review the project specifications to determine the type and dosage rate of the BC Tec corrosion inhibitor

Ensure that all raw materials (cement, aggregates, water, and admixture) meet project requirements and are free from contaminants.

Calibrate the batching plant to ensure accurate dosing of the admixture.

Step 2: BC Tec corrosion Inhibiror addition

The corrosion-inhibiting admixture should be added to the concrete mix at the batching plant. It can be introduced in one of the following ways:

Pre-batching: Admixture is added to the water or other liquid components before mixing with cement and aggregates.

Post-batching: Admixture is added directly to the concrete mixer after the cement, aggregates, and water have been mixed.

Ensure that the admixture is uniformly distributed throughout the concrete mix. This may involve increasing the mixing time slightly, as per the manufacturer’s instructions.

Step 3: Concrete Mixing

Once the admixture is added, the concrete mix should be thoroughly mixed to ensure homogeneity. Follow the manufacturer's recommended mixing time.

Conduct slump and temperature tests on-site to verify the consistency and workability of the concrete after the addition of the admixture.

Step 4: Placement and Curing

Place the concrete as per the standard procedures, ensuring no segregation or improper handling.

Proper curing is essential to achieving the full potential of the corrosion-inhibiting admixture. Follow standard curing practices such as wet curing, the use of curing compounds, or protective covers to prevent rapid moisture loss.

Step 5: Monitoring and Inspection

Conduct regular inspections during concrete placement to ensure compliance with the design specifications and that the admixture has been properly integrated into the mix.

Test the hardened concrete (compressive strength, permeability, chloride penetration) as per project requirements to assess its performance.

6. Quality Control:

Perform quality control checks to verify the correct dosage of the admixture.

Maintain records of the admixture's batch number, dosage rate, and test results to ensure traceability.

7. Conclusion: By following the above method statement, the corrosion-inhibiting admixture will be effectively integrated into the concrete mix, providing enhanced durability and protection for embedded steel reinforcement.