BUILDING CHEMISTRY INDUSTRY

Method Statement for BCI **BC Poxy 300 HD** (AS)

1. Purpose

This method statement outlines the procedure for the application of **BC Poxy 300 HD** (AS) This coating helps to reduce the accumulation of static charges on floors and surfaces in areas where static control is essential, such as electronic manufacturing facilities, data centers, and clean rooms.

2. Scope

This procedure covers the application of anti-static epoxy coating to concrete, steel, or other suitable surfaces, ensuring long-term performance and compliance with relevant standards.

3. Responsibilities

- **Project Manager**: Ensure that all materials and methods comply with project specifications.
- **QA/QC Engineer**: Perform inspections to verify coating thickness, adhesion, and consistency.
- **Site Supervisor**: Supervise site operations and enforce safety protocols.
- **Applicator**: Perform surface preparation and apply the anti-static epoxy coating following the specified procedure.

4. Reference Standards

- ASTM D3359 – Standard Test Methods for Measuring Adhesion by Tape Test
- ASTM C309 – Standard Specification for Liquid Membrane-Forming Compounds
- Manufacturer's Technical Data Sheet

5. Materials and Equipment

- Anti-static epoxy coating (as specified by the manufacturer)
- Epoxy primer (if required)
- Surface preparation tools (sandblasters, grinders, wire brushes)
- Mixing tools (mechanical stirrers, containers)
- Application tools (rollers, brushes, spray equipment)
- Personal protective equipment (PPE) including gloves, respirators, and eye protection
- Measuring instruments (thickness gauge, moisture meter)

6. Surface Preparation

- Clean the surface of dust, dirt, oil, grease, and any contaminants. Use sandblasting or mechanical grinding for concrete floors to ensure an adequate surface profile.
- For new concrete, ensure that the surface is fully cured (minimum 28 days) before coating.
- Check the surface moisture levels. Concrete moisture content should not exceed 5% before applying the coating.
- If required by the manufacturer, apply a suitable epoxy primer.

7. Mixing of Epoxy Coating

- Follow the manufacturer's recommended mixing ratio of the resin and hardener.
- Mix the components thoroughly using a mechanical stirrer for at least 3-5 minutes until the mixture is smooth and uniform.
- Ensure that the mixed epoxy is used within its specified pot life to avoid improper curing.

8. Application Procedure

- Apply the first coat of anti-static epoxy using a roller, brush, or spray equipment. If spraying, use an airless spray system recommended by the manufacturer.
- Ensure an even and uniform coat, covering all areas of the surface.
- Allow the first coat to cure as per the manufacturer's recommendations (usually 6-8 hours for touch-drying, but may vary).
- Apply additional coats (typically 2–3 layers) to achieve the desired thickness and performance characteristics.
- For anti-static properties, ensure the coating is applied at the correct thickness as specified by the manufacturer.

9. Curing and Drying

- Allow the coating to cure as per the manufacturer's instructions. Full curing usually takes 7–14 days depending on temperature and humidity.
- During curing, maintain the ambient temperature between 10°C and 30°C (50°F to 86°F) for optimal results.
- Avoid exposure to heavy traffic and any operations that could damage the coating during the curing period.

10. Inspection and Testing

- **Visual Inspection**: Ensure the coating is uniform, free of bubbles, and properly applied without patches or gaps.
- **Adhesion Test**: Perform an adhesion test (e.g., ASTM D3359) to ensure that the coating is bonded properly to the substrate.
- **Thickness Measurement**: Use a dry film thickness gauge to verify that the required coating thickness is achieved (typically 150–200 microns for anti-static coatings).
- **Surface Resistivity**: Check the surface resistivity (using a surface resistivity meter) to ensure it falls within the specified range for anti-static properties.

11. Safety Precautions

- Ensure proper ventilation in the application area.
- Applicators should wear appropriate PPE, including gloves, respirators, and goggles.
- Follow the manufacturer's Safety Data Sheet (SDS) for handling, mixing, and disposal of the epoxy materials.
- Maintain a safe working environment free from open flames or sparks, as epoxy materials may be flammable.

12. Acceptance Criteria

- The coating meets the required thickness, adhesion, and resistivity standards.
- No visible defects such as cracks, bubbles, or peeling.
- The anti-static properties meet the requirements of the facility (typically 10^6 to 10^9 ohms/square).

13. Documentation and Handover

- Provide the client with inspection and test reports.
- Submit any necessary certifications or material data sheets.
- Ensure that the client signs off on the completed work.