BUILDING CHEMISTRY INDUSTRY

Method Statement for Epoxy Self-Leveling Floor Coating BC Floor 3000 SL

1. Introduction

This method statement outlines the steps for applying an epoxy self-leveling floor coating. Epoxy coatings provide a durable, seamless, and chemical-resistant surface ideal for industrial and commercial environments.

2. Materials Required

Epoxy primer BC Poxy primer 349
Epoxy self-leveling base coat BC poxy floor 3000 SL
Epoxy topcoat (optional, depending on project specifications)
Solvent/cleaner (e.g., acetone)
Silica sand (for anti-slip properties, if needed)
Mixing equipment (low-speed mixer, mixing paddles)
Application tools (rollers, squeegees, trowels)
PPE (gloves, goggles, respirators, etc.)

3. Tools and Equipment

Electric mixer
Spiked roller
Trowel or gauge rake
Measuring cups/scales for precise mixing
Grinding machine for surface preparation
Vacuum cleaner or blower for cleaning the surface
Moisture meter

4. Surface Preparation

Inspection:

Ensure the concrete substrate is sound, dry, and free from contaminants such as oil, grease, and debris.

Cleaning:

Remove dust, dirt, and any loose particles using a vacuum cleaner or blower. The surface must be free from any foreign materials.

Moisture Testing:

Check the moisture content using a moisture meter. The surface moisture content should not exceed 4-5%.

Grinding/Scarifying:

Use a grinding machine to remove any surface imperfections, laitance, or old coatings.

Crack Repair:

Fill any cracks or surface irregularities with epoxy filler or repair mortar BC Poxy putty 2000 or BC Poxy mortar 5000

5. Application Steps

5.1 Priming

Mixing the Primer: Follow the manufacturer's instructions to mix the epoxy primer thoroughly. Usually, the two-component system (resin and hardener) should be mixed using a low-speed mixer for 2-3 minutes.

Application: Apply the primer uniformly using a roller or squeegee. Ensure no pooling or dry spots. Coverage rates depend on surface porosity.

Curing: Allow the primer to cure as per manufacturer's specifications (typically 8-12 hours).

5.2 Self-Leveling Epoxy Base Coat

Mixing: Mix the epoxy base coat (resin, hardener, and any additives such as color pigments) using a low-speed mixer. Follow the exact mix ratio provided by the manufacturer.

Application: Pour the mixed epoxy onto the floor and spread it using a trowel, gauge rake, or squeegee to achieve the desired thickness (usually 2-3 mm).

Leveling: Immediately after application, use a spiked roller to remove any air bubbles and ensure uniform leveling.

Curing: Allow the base coat to cure for 24 hours before applying the topcoat or allowing light foot traffic.

5.3 Topcoat (Optional)

Mixing and Application: If required, mix and apply the topcoat in the same manner as the base coat.

Anti-Slip Finish (Optional): For areas requiring anti-slip properties, broadcast silica sand into the wet topcoat, then apply another layer of epoxy to encapsulate the sand.

Curing: Allow the topcoat to cure for 24-48 hours before full traffic use.

6. Post-Application

Inspection: Check the surface for any defects such as pinholes, unevenness, or incomplete coverage.

Curing Time: Ensure the floor is allowed to fully cure before heavy machinery or foot traffic is introduced (usually 72 hours for full curing).

Cleaning: Clean all tools and equipment immediately after use with a suitable solvent.

7. Health and Safety

Use appropriate PPE, including gloves, goggles, and respirators, during mixing and application.

Ensure adequate ventilation in the application area.

Follow manufacturer’s safety data sheets (SDS) for all materials.

8. Quality Control

Verify the surface preparation quality by conducting a pull-off adhesion test, if required.

Ensure correct thickness is applied as per project specifications.

Monitor curing times and ensure the environment (temperature and humidity) is within recommended levels for the epoxy system.

9. Conclusion

A well-prepared substrate and accurate application of the epoxy self-leveling system will result in a durable, long-lasting, and visually appealing floor surface suitable for a variety of environments.