BUILDING CHEMISTRY INDUSTRY

Method Statement for Solvent-Free Polyurethane Flooring- BC Poly SL

1. Purpose

To define the procedures and controls necessary for the installation of solvent-free polyurethane flooring, ensuring the quality, safety, and compliance with project specifications.

2. Scope

This method statement covers the preparation, application, and curing process of solvent-free polyurethane flooring for industrial, commercial, and residential applications.

3. Responsibilities

Project Manager: Ensure overall project execution and compliance with specifications.
Site Supervisor: Monitor day-to-day activities, ensure safety, and maintain quality.
Quality Control Inspector: Verify compliance with quality standards and specifications.
Application Crew: Perform the actual application of the polyurethane flooring.

4. Materials and Equipment

Materials:

Solvent-free polyurethane resin and hardener. BC Poly SL
Primer (if specified).
Topcoat (if specified).
Quartz sand or other aggregates (if required).

Equipment:

Surface preparation tools (grinders, shot blasters, etc.).

Mixing equipment (low-speed electric drill with a mixing paddle).

Application tools (squeegees, trowels, rollers).

Personal protective equipment (PPE): gloves, safety goggles, respirators, etc.

5. Surface Preparation

Inspection:

Check the substrate for cleanliness, cracks, moisture content, and any contaminations.

Cleaning: Remove all dust, grease, oil, and loose materials using appropriate cleaning methods (grinding, vacuuming).

Moisture Test: Conduct a moisture test to ensure that the substrate is within acceptable moisture limits for polyurethane application.

Crack Repair: Fill and repair any cracks or voids in the substrate using appropriate repair materials.

Primer Application: If specified, apply a suitable primer to the prepared surface to ensure proper adhesion.

6. Mixing

Mixing Ratio: Follow the manufacturer's recommended mixing ratio for the polyurethane resin and hardener.

Mixing Procedure:

Pour the resin component into a clean mixing container.

Slowly add the hardener component to the resin while mixing with a low-speed drill mixer.

Mix for the recommended time (usually 2-3 minutes) until a homogeneous mixture is achieved.

Induction Time: Allow the mixed material to rest for the recommended induction time (if applicable).

7. Application

Pouring: Pour the mixed material onto the prepared substrate.

Spreading: Spread the material evenly using a squeegee or trowel to the desired thickness.

Leveling: Use a spiked roller to remove air bubbles and ensure even distribution.

Broadcasting (if required): For anti-slip surfaces, broadcast quartz sand or other aggregates evenly over the wet polyurethane layer.

Curing: Allow the flooring to cure for the specified time (typically 24-48 hours) before applying additional layers or using the surface.

8. Topcoat Application (if applicable)

Preparation: Lightly sand the cured polyurethane layer to ensure good adhesion.

Mixing: Mix the topcoat components as per the manufacturer's instructions.

Application: Apply the topcoat using a roller or squeegee to achieve a uniform finish.

Curing: Allow the topcoat to cure as per the manufacturer's guidelines before opening the area to traffic.

9. Quality Assurance

Thickness Check: Measure the thickness of the applied layers to ensure they meet the specifications.

Adhesion Test: Conduct a pull-off test to check the adhesion of the flooring system to the substrate.

Visual Inspection: Inspect the finished surface for uniformity, smoothness, and absence of defects.

10. Health and Safety

PPE: Ensure all personnel wear appropriate PPE, including gloves, goggles, and respirators.

Ventilation: Maintain adequate ventilation in the work area to avoid inhalation of fumes.

Spill Management: Keep spill control materials (absorbents) readily available in case of accidental spills.

11. Environmental Considerations

Avoid application in conditions where temperature and humidity are outside of the manufacturer’s recommended ranges.

Properly dispose of any waste materials in accordance with local regulations.

12. Completion and Handover

Ensure the flooring system has cured completely before handing over.

Conduct a final inspection with the client to confirm satisfaction with the finished product.

13. Documentation

Maintain a record of material batch numbers, application conditions, and any tests conducted for future reference.

This method statement should be customized based on specific project requirements and manufacturer guidelines.