

Method Statement for BCI Epoxy Novolac Tank Lining BC Novaline 321

Scope

This method statement outlines the procedure for the application of BCI Epoxy Novolac tank lining material BC Novaline 321 to provide chemical resistance in storage tanks, pipelines, and other containment areas.

Materials and Tools Required

Materials:

BC Poxy primer 349
BCI Epoxy Novolac resin and hardener System BC Novaline 321
Thinners (if required for specific viscosity adjustment)
Abrasive blasting material (grit)
Cleaning solvents (e.g., acetone or xylene)
Surface cleaner or degreaser

Tools and Equipment:

Abrasive blasting machine (for surface preparation)
Grinding tools (if required for localized areas)
Airless spray equipment (recommended for uniform thickness)
Rollers and brushes (for detailed areas or touch-ups)
Wet-film thickness gauge
Personal Protective Equipment (PPE): gloves, respirators, goggles, coveralls

3. Surface Preparation

The substrate must be cleaned and prepared to ensure a strong bond between the tank lining and the surface.

Step 1: Cleaning and Degreasing

Remove all dirt, grease, oil, and contaminants using appropriate cleaners or degreasers.

Allow the surface to dry completely before proceeding to the next step.

Step 2: Surface Abrasion

Perform abrasive blasting (grit blasting) to achieve the required surface profile. A surface profile of 75-125 microns (3-5 mils) is typically required, with a cleanliness standard of at least Sa 2½ (Near White Metal) as per ISO 8501-1 or equivalent standards.

Ensure a uniform, roughened surface with no visible contaminants after blasting.

Clean the blasted surface to remove dust and debris using clean, dry compressed air or vacuum cleaning.

4. Priming

Step 1: Mixing the Primer

Prepare the BC Poxy primer 349 by mixing the resin and hardener components according to the product data sheet instructions. Ensure accurate ratios and thorough mixing.

Allow the mixture to rest (induction time) for the period specified by the manufacturer.

Step 2: Primer Application

Apply the primer to the surface using airless spray equipment, roller, or brush. The primer coat should be applied evenly, ensuring no puddling or over-application.

Use a wet-film thickness gauge to ensure the primer thickness complies with the specified range (typically around 75-100 microns or as specified).

Allow the primer to cure as per the manufacturer's recommendation (usually 4-6 hours at 25°C).

5. BC Novaline 321 , Epoxy Novolac Lining Application

Step 1: Mixing Epoxy Novolac Resin BC Novaline 321

Mix the Epoxy Novolac resin and hardener components in accordance with the manufacturer's instructions.

If required, thin the mixture with an appropriate solvent as specified by the manufacturer to achieve the required viscosity for spraying.

Step 2: Application of Lining

Apply the first coat of Epoxy Novolac lining using an airless spray machine or roller. For detailed areas (edges, corners, welds), use a brush or roller to ensure adequate coverage.

Monitor the wet film thickness during application to meet the specified dry film thickness (DFT), usually 300-500 microns per coat.

Allow the first coat to cure as per the manufacturer's instructions (typically 8-24 hours).



Step 3: Inspection

Inspect the first coat for defects such as pinholes, blisters, or uneven coverage. Perform holiday testing using a spark tester to detect any pinholes or discontinuities.

Repair any defects using additional coats or patching material.

Step 4: Apply Subsequent Coats

If multiple coats are specified, apply subsequent coats after the first coat has adequately cured. Each coat should be applied within the re-coat window specified by the manufacturer.

Ensure the total DFT meets the project specification (e.g., 500-1000 microns for heavy-duty chemical protection).

6. Final Inspection and Testing

Step 1: Curing Time

Allow the final coat to cure fully, which typically takes 48-72 hours, depending on the ambient temperature and humidity.

Step 2: Holiday Testing

Conduct a final holiday test to ensure there are no pinholes or defects in the lining.

Step 3: Adhesion Testing

Perform adhesion testing to verify the bond strength between the lining and substrate.

Step 4: Final Inspection

Conduct a visual and thickness inspection to ensure the lining meets project specifications.

7. Health and Safety

Ensure all workers use appropriate PPE during application.

Provide adequate ventilation in confined spaces.

Follow all safety data sheet (SDS) instructions for handling chemicals.

8. Cleanup

Clean all tools and equipment using suitable solvents.

Dispose of waste materials in accordance with local environmental regulations.

This method ensures the correct application of an Epoxy Novolac tank lining for long-term chemical resistance and durability.