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Thermablock NANO Coating Application Instructions

1.0 PRODUCT STORAGE AND HANDLING

- 1.1 Store materials between 32°F and 100°F
- 1.2 Store materials in their original sealed containers. Do not open containers until they are to be used. This resin is moisture cured and opening the containers can reduce the material's shelf life.
- 1.3 The coating materials must be used within the manufacturers published shelf life.

2.0 SURFACE PREPARATION

- 2.1 Wipe off the surface with an isopropanol-soaked cotton towel or rag. Smooth surfaces should be roughened with 120 grit sandpaper and then cleaned with IPA.
- 2.2 Surfaces that are not to be coated should be masked off so that overspray, drips, or spills do not contact these surfaces during application.

3.0 MIXING

- 3.1 The Thermablock NANO system is pre-packaged in containers with the proper mix ratio. Parts A and B are the two components that will be mixed together. Stir component A with a mechanical mixer before blending. Make sure that the settled material is completely mixed.
- 3.2 Blend Part A resin and Part B hardener by pouring the entire contents of Part B into Part A. Mix with a mechanical stirrer until the blend is uniform. If a mechanical stirrer is not available, blend with mixing stick until mixture become uniform in thickness and appearance.
- 3.3 The pot life is approximately 8 hours.

4.0 APPLICATION

- 4.1 Apply the Thermablock NANO mixture with a conventional (pressure pot) air spray equipment.
- 4.2 Recommended pressures are 25 - 30 psi gun pressure and 15 - 25 psi pot pressure. Fan valve should be adjusted to approximately half open. Adjust spray nozzle to achieve a uniform wet spray. HIGH SPRAY PRESSURES CAN CLOG THE GUN.
***If rough powder finish is seen, increase your guns flow rate and focus your nozzle.**

When using spray application, use a 50% overlap with each pass of the gun to avoid thin spots, bare areas and pinholes. If necessary, cross-spray at right angles.

- 4.3 The optimum film thickness for the first coat is 10 ± 2 mils.

5.0 EQUIPMENT

- 5.1 Air Spray (Pressure Pot)
 - 5.1.1 Binks 2001 and Binks Mach II are recommended air spray equipment.
 - 5.1.2 Pot pressure recommendations are 15-20 psi and an air pressure of 25 – 30 psi at the gun.
 - 5.1.3 The air supply must have an effective moisture trap.
 - 5.1.4 The needle-valve nozzle should be 70 mil.
- 5.2 Mixing
 - 5.2.1 Variable speed, hand-held mixer with a 3" impeller blade.
- 5.3 Personal Protection Equipment
 - 5.3.1 NIOSH/OSHA approved respirator for each operator
 - 5.3.2 Chemical resistant gloves

6.0 EQUIPMENT SET-UP PROCEDURE CHECKLIST

- 6.1 Inspect all spray parts and components. Ensure that the spray guns are clean and in proper working condition. Change or clean filters prior to use. Check for proper tips and tip sizes.
- 6.2 Check all air/liquid hoses for cracks, leaks, etc. Replace parts if necessary. New hoses should be used to eliminate the possibility of clogging from previous materials.
- 6.3 Inspect all valves and gauges for accuracy and efficiency. Replace as required. Adjust valves to proper pressures.
- 6.4 Position coating containers away from the paint pump to prevent relief valve moisture from contaminating the product.
- 6.5 Flush isopropyl alcohol (IPA) through the system to clean hose and minimize potential contamination.

7.0 CLEAN-UP

- 7.1 Use isopropyl alcohol (IPA), methylethylketone (MEK) or acetone as clean-up solvent. Flush and clean up spray equipment after completion of the coating applications. **THESE SOLVENTS ARE FLAMMABLE.**
- 7.2 Do not allow unused materials to remain in the hoses, gun, or spray equipment.
- 7.3 All surplus mixed materials and empty containers should be discarded in accordance with appropriate local and federal regulations.
- 7.4 When using reactive materials, it is necessary to clean equipment thoroughly after each use. Most catalyst-cured materials will not dissolve in solvents after partial or complete cure.

8.0 SAFETY

- 8.1 Before starting the coating application, it is recommended that the operator read all the available safety data including, but not limited to , the material safety data sheet and the product data sheet. The basic premise of safety in surface preparation, coating application and inspection is being aware of the potential hazards.
- 8.2 The resin and cleaning solvents are all flammable. Keep them away from open flames and spark sources.
- 8.3 All electrical equipment shall be properly grounded per OSHA regulations.
- 8.4 Refer to OSHA regulation 29 CRF 1910 pertaining to work in confined areas.
- 8.5 Avoid inhalation of the coating vapors and spray and contact to skin and eyes.
- 8.6 Proper personal protection equipment; including safety glasses or goggles, chemical resistant gloves, and a NIOSH/OSHA approved respirator are strongly recommended.

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