



## **INSTALLATION SPECIFICATION PACMASTIC™ 325 MEMBRANE**

### **1. SCOPE**

- 1.1 This specification governs the installation of Pacmastic 325 Membrane as manufactured by Armor.
- 1.1 This specification shall be used in conjunction with information presented on product data sheets CE-249 Pacmastic 325 Membrane, CE-139 Penntrowel™ Epoxy Primer, Novocoat™ SC1100 Primer and CE-150 Pennguard™ HP Primer and any associated specifications referenced therein.

### **2. MATERIAL ENVIRONMENTAL AND SUBSTRATE CONDITIONS**

- 2.1 The product and substrate temperatures are important. In cooler temperatures, the product storage and construction areas shall be conditioned to achieve and maintain the temperatures outlined below.
- 2.2 At the time of mixing and application, the temperature of the components should ideally be between 70°F (21°C) and 90°F (32°C).
- 2.3 The temperature of the prepared surface shall be at least 5°F (3°C) above the moisture dew point and between 50°F (10°C) and 95°F (35°C) at the time the Pacmastic 325 Membrane is applied.
- 2.4 The work site must be protected from precipitation until the Membrane has achieved dry-to-touch stage.

### **3. SURFACE PREPARATION**

- 3.1 The surface condition of new and/or existing concrete can vary greatly. The surface should be thoroughly inspected to identify the condition and suitability of the surface to accept the Membrane. An assessment and evaluation of the suitability of the surface should precede quotations, procurement, or mobilization of installation crews.
- 3.2 When forms have been used for placing concrete, they should be designed to yield a smooth continuous concrete surface to which the lining will be applied.
- 3.3 New concrete shall reach a minimum compressive strength of 3000 psi (20 MPa) and a surface tensile strength of 300 PSI (2.0 MPa) before the lining is applied.
- 3.4 All cavities, stone pockets, honeycombing, and bug holes greater than 1/4" (6 mm) depth shall be filled by repairing with appropriate polymer-modified cementitious materials.

### **4. SUBSTRATE PREPARATION ON CONCRETE**

- 4.1 A concrete surface to which the Pacmastic 325 Membrane is to be applied shall be prepared by abrading the concrete and have a resultant surface like a medium grit of sandpaper. The surface shall have a non-glazed appearance. Remove enough material to achieve a sound concrete surface free of laitance, glaze, efflorescence and incompatible concrete curing agents or form release agents.

- 4.2 A single pass troweled finish shall be given to new concrete floors with care being taken to avoid bringing laitance to the surface. New concrete shall be cured in accordance with good practice as outlined in ACI-308 "Recommended Practice for Curing Concrete". Do not use liquid curing compounds as they may impede the bond of the lining system.
- 4.3 Consult SSPC-SP 13/NACE No. 6 for recommended surface preparation procedures.
- 4.4 Remove all form marks and protrusions such as prominent aggregate exposure, tie wires, reinforcing wires. They must be cut off below the surface and filled with a suitable fast curing sand/cement repair mix. All cavities, stone pockets, honeycombing, and bug holes shall also be filled.

## **5. SUBSTRATE PREPARATION ON STEEL**

- 5.1 Prepare steel in accordance with SSPC-SP 10 or SA 2.5. Primer is not required on steel but the use of PENNGUARD™ HP Epoxy Primer is suggested to minimize re-rusting of freshly blasted substrates.

## **6. PRIMER APPLICATION**

- 6.1 Penntrowel™ Epoxy Primer or Novocoat SC 1100 are the recommended primers for all concrete surfaces. Primer seals the substrate surface and promotes adhesion of Pacmastic 325 Membrane. Consult Product Data Sheet CE-139 and Installation Specification CES-342 for complete product details.
- 6.2 Pennguard HP Primer (CE-314) can be used as a primer on freshly prepared steel substrates to prevent re-rusting of freshly blasted surfaces. Consult Installation Specification CES-150 for complete installation details of Pennguard HP Primer.

## **7. INSTALLATION OF PACMASTIC 325 MEMBRANE**

- 7.1 Pacmastic 325 is a single component air drying material. There is no catalyst with this material. It can be applied by flat trowel or by spray.
- 7.2 Consult product data sheet for a suggested starting point for spray equipment, if application by spray is the preferred method of installation. However, specific manufacturers of specific spray equipment instructions override the suggested starting point outlined on the PACMASTIC 325 product data sheet, and the equipment manufacturer should be consulted for specific details. Equipment part numbers and specifications can change without notice, and Corrosion Engineering is not responsible for specific spray equipment recommendations.
- 7.3 Pacmastic 325 should be mixed in the pail after opening to reconstitute any solvent that may have separated. If Pacmastic 325 is too stiff for use, it is suggested to try to add heat to material to thin it. Take appropriate precautions when applying a heat source as Pacmastic 325 contains solvent. Open-flamed heat sources are not suggested if this is required.
- 7.4 Pacmastic 325 should have the consistency of a medium to heavy creamy paste. Apply Pacmastic 325 by trowel in 2 coats onto suitably prepared substrate to specified thickness. Voids are more likely to be eliminated in two coats compared to applying double thickness in a single coat. Be sure all surface areas are completely covered and there are no voids in the Pacmastic 325 Membrane. Consult project specifications or product data sheet for suggested application thickness and WFT/DFT (wet film thickness/dry film thickness) coverage.
- 7.5 Pacmastic 325 should be applied in at least 2 layers, "wet to wet". In other words, the first coat should have achieved sufficient "tack" so as not to slump off when second coat is applied but still be wet. The amount of time for this will depend upon ambient temperature and temperature of material at time of placement, but it is usually achieved same day, and within the reach of workers as the job progresses, without having to go back and re-do areas already coated.

- 7.6 If Pacmastic 325 is to be installed in an application where it will subsequently be covered with a cast or guniting polymer concrete that requires a mechanical anchoring system, the application sequence may vary, dependent upon the substrate. For steel substrates where anchors are welded in place, the anchors should be first welded in place before application of the Pacmastic Membrane. Due to the difficulty of subsequently applying the Membrane onto a surface where anchors have already been installed, it is usually preferable to apply the Pacmastic by spray. Pay particular attention to seal around the base of each anchor. This may require touch up by hand.
- 7.7 On concrete substrates, anchors are typically installed by predrilling a hole and hammering the anchor in place. This can be done after the installation of the Pacmastic onto the substrate. Once the anchor holes have been drilled and the anchors set in place, pay particular attention to seal around the base of each anchor by touching up each anchor at the point it penetrates the Membrane. This will require touch up by hand.
- 7.8 If Pacmastic 325 is to have PTFE film embedded into it, consult Armor.
- 7.9 Pacmastic 325, should be allowed to dry sufficiently to be tack free and not be disturbed by subsequent application of acid proof brick or polymer concrete linings applied on top of it, if the application so specifies. This length of time will vary depending upon temperature, humidity and air flow, but it is usually achieved in 1 - 2 days. If tackiness remains beyond this time and schedule if subsequent work is tight, a very fine inert dust or powder can be lightly applied over the tacky membrane to allow workers to proceed.

## **8. CLEANUP**

- 8.1 Clean tools with mineral spirits and rags. Dispose of rags in accordance with good practice and in compliance with local regulations.

## **9. SAFETY PRECAUTIONS DISCLAIMER CONTACT INFORMATION**

- 9.1 Consult current Safety Data Sheets (SDS's) before commencement of work.
- 9.2 While statements, technical information and recommendations contained herein are based on information our company believes to be reliable, nothing contained herein shall constitute any warranty, express or implied, with respect to the products and/or services described herein, and any such warranties are expressly disclaimed. We recommend that the prospective purchaser or user independently determine the suitability of our product(s) for their intended use. No statement, information, or recommendation with respect to our products, whether contained herein or otherwise communicated, shall be legally binding upon us unless expressly set forth in a written agreement between us and the purchaser/user. For all Terms and Conditions of Sale see armor-inc.com.
- 9.3 Please contact Armor for further information at +1-877-98ARMOR (982-7667) or customerservice@armor-inc.com.