



TECHNICAL INFORMATION

CES-303

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INSTALLATION SPECIFICATION PENNCOAT™ 101 MEMBRANE SYSTEM

1. SCOPE

- 1.1 This specification governs the installation of Penncoat 101 hot melt multi-layer asphalt membrane lining system. It consists of a cut back asphalt primer (Pennprime 101), a hot melt applied asphalt membrane layer (Penncoat 101) and a cloth reinforcing layer (Pennply 101).

2. APPLICATION

- 2.1 Concrete shall be poured to proper grade and wood floated. Cure with plastic sheet, do not use liquid curing compounds. Concrete shall be free of high and low spots, and from pits, cavities or honeycombing. To ensure good drainage slope should be 1/4" to the foot (20 mm to the meter). Concrete mix designs and jobsite environmental conditions can be highly variable. In all cases the placed concrete shall have cured sufficiently to pass the ASTM D4263 mat test as outlined in NACE No. 6/SSPC-SP 13 section 5 to ensure absence of moisture.

If moisture testing is not performed, standard industry practice is to allow a 28-day cure on concrete surfaces receiving membranes, epoxy setting beds or monolithic toppings. Excess moisture is especially a detriment to hot melt membranes as the hot melt contacts the residual moisture, turns to steam, and will result in voids.

- 2.2 Prior to commencement of any work, the flooring contractor shall thoroughly examine all floor surfaces and report any conditions which will adversely affect proper floor installation. These conditions may include the presence of birdbaths, irregular slopes and flatness, cracks or chips, and degraded expansion or control joints amongst others. Commencement of work shall be deemed as acceptance of floor finish slope and condition. If there are any disputes, these should be resolved before commencement of work.
- 2.3 Apply a single coat of Pennprime 101 asphalt primer with a stiff brush scrubbing thoroughly into the concrete until all floor areas show black color. Allow primer to dry until it is dry (not tacky) to touch.
- 2.4 Penncoat 101 Membrane is a solid asphalt product. It must be heated to be applied. For best results, Penncoat 101 should be heated to and applied between 325°F-400°F (163°C-204°C). Lower temperatures will result in difficulty in applying. Higher temperatures can result in loss of properties.
- 2.5 Care should be used in the initial heating of a kettle containing cold solid asphalt. Apply heat slowly until the area around the heating tubes is liquid, then increase the heating rate as additional quantities of solid asphalt are added. Excessive temperatures can cause coke to form around heating tubes. This coke should be removed as soon as possible as it will serve as an insulator resulting in poor heat transfer and premature tube failure.
- 2.6 Melt Penncoat 101 hot membrane and apply by squeegee to a minimum thickness of 1/8" (3 mm). To achieve the 1/8" thickness will require multiple passes with a squeegee. Do not "flood" the Penncoat 101 to attempt to achieve the 1/8" (3 mm) thickness in a single application. Do not use mops or brushes to apply the membrane as wicking from loose random strands may cause pinholes in the membrane.
- 2.7 Roll a single ply of Pennply 101 glass reinforcing cloth into the top surface. Overlap all edges 2" (50 mm) and smooth out any wrinkles or bulges with a squeegee while Penncoat 101 is still soft.

- 2.8 Apply a second 1/8" (3 mm) coat of Penncoat 101 Membrane as in Paragraph 2.5, to provide a minimum over-all thickness of 1/4" (6.4 mm).
- 2.9 If so specified, a second layer of cloth and a third 1/8" (3.2 mm.) layer of asphalt may be applied, for a minimum total membrane thickness of 3/8" (9.5 mm). This is often recommended in trenches, pits, and sumps.
- 2.10 Powdered silica flour (325 mesh size) may be very lightly dusted over membrane surface to prevent sticking of workmen's shoes as they walk across freshly applied first layer of the Penncoat 101.

3. CLEANUP

- 3.1 Use mineral spirits for cleaning Pennprime and Penncoat residue.

4. SAFETY PRECAUTIONS DISCLAIMER CONTACT INFORMATION

- 4.1 Consult current Safety Data Sheets (SDS's) before commencement of work.
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