



Penncoat™ 101 Membrane

SELECTION & SPECIFICATION DATA

Type	Hot melt asphalt membrane
Description	Penncoat 101 Membrane is a multiple layer hot applied asphalt membrane system. It is applied as a built-up system at a nominal ¼" (6 mm) thickness to protect suitably prepared concrete substrates. It consists of the following components: Pennprime 101, Pennply 101, and Penncoat 101.
Uses	<ul style="list-style-type: none">• Install as a membrane under acid-resistant brick and polymer concretes• Use as a component layer in concrete vessel linings under acid brick
Features	<ul style="list-style-type: none">• Broad chemical resistance• Excellent value – economical installed cost• Full ¼" (6 mm) thickness provides positive sealing for concrete substrates• Convenient packaging• Multi layer application insures pinhole free lining• Bridges hairline cracks in concrete• Shelf life stable
Limitations	<ul style="list-style-type: none">• Not recommended as a stand-alone lining. Care must be taken when using in enclosed areas. Not for use beyond its chemical resistance capabilities. Consult Armor with specific questions.

INSTALLATION GUIDANCE

Reference Specifications	CES-303 Penncoat 101 Installation specification
Installation Conditions	Materials and substrate should be acclimated to the air temperature prior to installation, and the air temperature should be between 50°F (10°C) and 90°F (32°C) during installation and cure.
Mixing/Use	The Penncoat 101 Membrane System is applied in layers. Pennprime 101 is a single component material and is first applied by roller onto a suitably prepared concrete substrate and allowed to dry (typically 8 hours at 70°F/21°C). Penncoat 101 is a solid material that is normally cut up into smaller pieces and charged into a suitable asphalt melting kettle set to 325°F-400°F (163°C-204°C). Once it has turned liquid it is applied onto the dry Pennprime 101 by use of flat squeegee to a nominal thickness of 1/8" (3 mm). Before the Penncoat 101 layer has fully cooled and solidified, Pennply 101 is cut from the supplied roll and embedded into the soft Penncoat 101 and smoothed to remove wrinkles with a squeegee. Once the reinforced membrane has been allowed to cool, a second layer of Penncoat 101 is applied over the Pennply 101. For additional protection and for use in sumps and trenches the Pennply 101 and Penncoat 101 layers can be repeated resulting in a completed 3/8" (9 mm) thick system. Take care when applying the Penncoat 101 Membrane System on verticals, multiple passes may be required as the natural tendency of the hot-melt membrane is to self-level.

Work Life Heated Penncoat 101: 10-20 minutes

Cleanup Mineral spirits

CURE TIME

Temperature	Initial Set	Full Cure
70°F (21°C)	30 minutes	2 hours

SAFETY

Safety Mixes and applications of this product present a number of hazards. Read and follow the hazard information, precautions and first aid directions on the individual product labels and safety data sheets before using.

Ventilation Provide thorough air circulation during and after application until the material has cured when used in enclosed areas.



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PACKAGING & ESTIMATING

Product	Code	Packaging
Pennprime101	19643	5-gallon (18.9 l) unit
Pennply 101	21930	150' (45.7 m) x 3' (.9 m) roll
Penncoat 101	29432	100 lb (45.4 kg) keg
Theoretical Coverage	Pennprime 101: 750 sf (70 sm) per pail Pennply 101: 450 sf (42 sm). Allow 3" (75 mm) for seam overlap Penncoat 101: 1.5 lb per sf (7.3 kg per sm) when applied at ¼" (6mm) thickness, 2.25 lb per sf (11 kg per sm) when applied at 3/8" (9 mm) thickness	
Storage & Shelf Life	Maintain product in original packaging and sealed until ready for use. When stored at 70°F (21°C) in a dry location, Penncoat 101 and Pennply 101 are shelf stable. Estimated shelf life of Pennprime 101 is 24 months when stored in a dry area at 70°F (21°C). Actual shelf life may vary with storage conditions. If there is any question with respect to the quality of the components check prior to use. For assistance consult with Armor.	

TYPICAL PHYSICAL PROPERTIES

Property	Typical Value
Pennprime 101	
Asphalt content, % by weight	35-43
Viscosity, 77°F (25°C)	30-50 cps
Flash Point, ASTM D93	110°F (43°C)
Pennply 101	
Tensile strength, 70°F (21°C)	35 lb/inch
Tensile strength with warp, 70°F (21°C)	60 lb/inch
Penncoat 101	
Color	Black
Specific gravity, ASTM D71	0.99
Ball and ring softening point, ASTM D36	210°F -230°F (99°C-107°C)
Penetration, ASTM D36, 77°F (25°C)	30-40 dmm

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