

SELECTION & SPECIFICATION DATA

Type	Urethane asphalt membrane
Description	Tufchem II Membrane is a 2-component elastomeric urethane-modified asphalt membrane. It is trowel-applied at a nominal 1/8-inch (3 mm) thickness to protect concrete and steel substrates from corrosion. Also available in Spray Grade and self-leveling Tufchem II SL Membrane.
Uses	<ul style="list-style-type: none"> • Primary corrosion barrier to protect concrete and steel substrates from chemical attack in municipal wastewater containment environments. • Membrane under acid-resistant brick, refractories, polymer concretes and gunite. • Layer under acid brick in vessel linings. • Field repair rubber membranes in tanks and absorbers.
Features	<ul style="list-style-type: none"> • Trowel-applied • Sag-resistant at 80-125 mils (2-3 mm) WFT • Two-component • Shelf stable • Very good abrasion resistance • Retains flexibility down to -40°F (-40°C) • Suitable for acids, alkalis, and salt solutions • Excellent water vapor barrier • Bridges hairline cracks in concrete
Limitations	Not for use beyond its chemical resistance capabilities. Not suitable for oxidizing acids. Resists hydrofluoric acid, fluorosilicic acid, and hydrofluorosilicic acid. Consult Armor with specific questions.

INSTALLATION GUIDANCE

Reference Specification	CES-334 Tufchem II Membrane Installation Specification.	
Installation Conditions	Tufchem II Membrane is formulated for ideal handling at 70°F (21°C). 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 & Application	<p>Mix Part A Base for 1 minute to loosen. Continue mixing while slowly emptying the can of hardener into the center vortex and mix thoroughly for 3 minutes at 70°F (21°C), 5 minutes at 50°F (10°C), moving the mix blade up, down and around the pail to catch all the edges. Mixed material is heavy-bodied.</p> <p>Use Penntrowel™ Epoxy Primer or Novocoat™ SC1100 Primer/Sealer on concrete under membrane to minimize outgassing and pinholes. Use Pennguard™ HP Epoxy Primer on steel to hold blast profile prior to applying membrane.</p> <p>To tack-free primed substrate, apply in two equal-thickness passes, wet on wet, to ensure adhesion between coats and a pinhole free lining. For larger areas, consider spray-applied Tufchem II Membrane Spray Grade. For floors or roof decks, speed application by substituting self-leveling Tufchem II SL Membrane.</p>	
Work Life	45-60 minutes	
Cleanup	Mineral spirits	
<u>CURE TIME</u>		
Temperature	Initial Set	Full Cure
70°F (21°C)	4-6 hours	5-7 days
<u>SAFETY</u>		
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.	



Tufchem™ II Membrane

PACKAGING, ESTIMATING & HANDLING

Product	Code	Packaging
Tufchem II Membrane Kit	19683	4-gallon unit for ground transport
Tufchem II Membrane Part A Base only	21924	4-gallon pail for air transport
Tufchem II Membrane Part A Base only	19684	4-gallon pail for ocean transport
Urethane Asphalt Hardener	29488-341	341 gram can for air or ocean transport
Theoretical Coverage	50 ft ² (4.7 m ²)/4-gal unit at 125 mils (3.2 mm) 70 ft ² (6.6 m ²)/4-gal unit at 90 mils (2.3 mm) 100 ft ² (9.6 m ²)/4-gal unit at 62 mils (1.6 mm)	
Storage & Shelf Life	Maintain products in original packaging and sealed until ready for use. Estimated shelf life of components is 18-24 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 reactivity prior to use. For assistance, consult with Armor.	

TYPICAL PHYSICAL PROPERTIES

Property	Typical Value
Color	Black
Density	8.6 lb/gallon (1,030 kg/m ³)
Elongation, ASTM D412	>200%
Tensile strength, ASTM D412	>100 psi (0.7 MPa)
Bond to carbon steel, ASTM D412	>100 psi (0.7 MPa)
Permeance, ASTM C96, method E, wet method	<0.1 perms
Mix ratio	46:1 by weight
Service temperature range	
- if directly exposed	-40°F (-40°C) to 170°F (77°C)
- behind masonry/concrete	-40°F (-40°C) to 200°F (93°C)

Rev 11/2025

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