Tufchem™ II Membrane Spray Grade

SELECTION & SPECIFICATION DATA

Type

Urethane asphalt membrane

Description

Tufchem II Membrane-Spray Grade is a 2-component elastomeric urethane-modified asphalt membrane. It is designed to be applied using industrial spray equipment at a nominal 1/8-inch (3 mm) thickness to protect concrete and steel substrates from corrosion. Also available in trowel-applied Regular Grade and self-leveling Tufchem II SL Membrane.

Uses

- Corrosion barrier to protect concrete and steel substrates from chemical attack.
- Membrane under acid-resistant brick, polymer concrete, and vessel linings.
- Dew point corrosion protection membrane under refractories and gunite linings.
- Corrosion barrier in chimneys, flues, or ducts.
- Field repair compound for rubber membranes in tanks and absorbers.

Features

- Spray-applied
- Sag-resistant at 80-165 mils (2.1-4.2 mm) WFT
- Two-component
- Shelf stable
- Achieves 80-125 mils (2-3 mm) film in one pass
- 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 Specifications

CES-368 Tufchem II Membrane Spray Grade

Installation Conditions

Tufchem II Membrane Spray Grade 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.

Prepare steel surfaces in accordance with SSPC-SP6 (SA 2). Prime with Pennguard™ HP Epoxy Primer to hold blast profile.

Prepare concrete surfaces in accordance with SSPC SP13 or ICRI CSP5 to achieve a surface texture similar in appearance and feel to 100 to 150 grit sandpaper. Prime with Penntrowel™ Epoxy Primer or Novocoat™ SC1100 Concrete Primer/Sealer to minimize outgassing and pinholes.

Mixing & Application

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, moving the mix blade up, down and around the pail to catch all the edges. Mixed material is heavy-bodied.

Consult installation specifications for guidance regarding spray equipment.

For smaller areas, consider trowel-applied Tufchem II Membrane Regular Grade. For floors or roof decks, avoid spray rig clean-up by substituting self-leveling Tufchem II SL Membrane.

Work Life

45-60 minutes

Cleanup

Mineral spirits

CURE TIME

Temperature	Initial Set	Full Cure
70°F (21°C)	4-6 hours	5-7 days

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.

Tufchem™ II Membrane Spray Grade

PACKAGING, ESTIMATING & HANDLING

Product	Code	Packaging
Tufchem II Membrane Spray Grade Part A Base	19507	4.5-gallon (17 L) pail
Urethane Asphalt Hardener	29488-262	262 gram can

Theoretical Coverage

1 x 4.5-gallon unit consists of 1 x 4.5-gallon (17L) of part A base and 1 x 262-gram bottle of part B hardener.

44 ft^2 (4.1 m^2)/4.5-gal unit at 165 mils (4.2 mm) WFT, 125 mils (3.2 mm) DFT
57 ft^2 (5.4 m^2)/4.5-gal unit at 125 mils (3.2 mm) WFT, 90 mils (2.3 mm) DFT

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	7.6 lb/US gallon (911 kg/m^3)
Elongation, ASTM D412	>100%
Tensile strength, ASTM D412	>70 psi (0.48 MPa)
Flexibility, ASTM D522 cylindrical mandrel, 7-day	Pass, no evidence of cracking or disbondment
Solids content, 10 gm/100°C/1 hr.	70-75%
Bond to primed carbon steel, Armor internal test method	Exceeds tensile strength of material, 100% cohesive failure
Permeance, ASTM C96, method E	0.24 perms
Mix ratio by weight	59 parts Base: 1 part Hardener
Service temperature range	-40°F (-40°C) to 190°F (87°C)

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