

Tufchem™ II Membrane Spray Grade

SELECTION & SPECIFICATION DATA

Type	Urethane asphalt membrane
Description	Tufchem II Membrane Spray Grade is a 2-component elastomeric urethane asphalt membrane. It is designed to be applied using industrial spray equipment at a nominal 1/8" (3 mm) thickness to protect concrete and steel substrates.
Uses	<ul style="list-style-type: none"> • Use as a primary corrosion barrier to protect concrete and steel substrates from chemical attack in municipal waste water containment environments. • Install as a membrane under acid-resistant brick, refractories, polymer concretes and gunites. • Use as a component layer in vessel linings under acid brick. • Use to do field repairs to rubber membranes in tanks and absorbers.
Features	<ul style="list-style-type: none"> • Two-component apply by spray at thicknesses of 80 - 165 mils (2.1-4.2 mm) wft. • Remains elastomeric within a temperature range as low as -40°F (-40°C). • Suitable for acids, alkalines, and salt solutions • Very good abrasion resistance when cured. • Shelf life stable.
Limitations	<ul style="list-style-type: none"> • Not for use beyond its chemical resistance capabilities, not suitable for oxidizing acids. Consult ErgonArmor with specific questions.

INSTALLATION GUIDANCE

Reference Specifications	CES-326 and CES-334 Tufchem II Membrane installation on concrete and steel substrates						
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.						
Mixing/Use	<p>Tufchem II Membrane Spray Grade is a 2-component material. After opening the lid, set aside the hardener component and mix Part A for 1 minute to loosen. Slowly add Part B Hardener into the center vortex and mix thoroughly for 3 minutes. Do not undermix. Make sure to move the mix blade while mixing to catch all edges around the pail perimeter. Mixed material will have a heavy bodied consistency that is suitable for application onto verticals or on floors. Consult applicable installation specifications for details of appropriate spray equipment, guns, nozzles, tips, pumps etc.</p> <p>Tufchem II Membrane Spray Grade should be applied over Penntrowel™ Epoxy Primer when used on concrete to minimize outgassing and potential for pinholes. When applying over steel, Pennguard™ HP Primer is suggested to hold the blast profile and prevent re-rusting of the prepared substrate.</p> <p>For smaller surface areas consider the use of CE-196 Tufchem II Membrane and apply by trowel. For applications on flat surfaces, CE-197 Tufchem II SL (Self Leveling) Membrane can speed up application time.</p>						
Work Life	45-60 minutes						
Cleanup	Mineral spirits						
<u>CURE TIME</u>							
Temperature	<table border="0" style="width: 100%;"> <thead> <tr> <th style="width: 50%;"></th> <th style="width: 25%;">Initial Set</th> <th style="width: 25%;">Full Cure</th> </tr> </thead> <tbody> <tr> <td>70°F (21°C)</td> <td style="text-align: center;">4-6 hours</td> <td style="text-align: center;">5-7 days</td> </tr> </tbody> </table>		Initial Set	Full Cure	70°F (21°C)	4-6 hours	5-7 days
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<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 Spray Grade

PACKAGING & ESTIMATING

Product	Code	Packaging
Tufchem II Membrane Spray Grade Part A	19507	4.5 gallon (15.1 l) 38 lb (17 kg) 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 sf (4.1 sm)/per 4.5 gal unit at 165 mils (4.2 mm) wft, or 125 mils (3.2 mm) dft 57 sf (5.3 sm) per 4.5 gal unit at 90 mils (3/32" or 2.4 mm) wft, or 90 mils (2.25 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 ErgonArmor.	

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 (.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, ErgonArmor internal test method	Exceeds tensile strength of material, 100% cohesive failure
Permeance, ASTM C96, method E	0.24 perms
Mix ratio by weight, component A: component B	59:1
Service temperature range - if directly exposed - behind masonry/concrete	-40°F(-40°C) to 170°F (77°C) -40°F(-40°C) to 200°F (93°C)

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