

SELECTION & SPECIFICATION DATA

Type	Urethane asphalt membrane
Description	Tufchem II is a 2-component elastomeric urethane asphalt membrane. It is applied 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 trowel at thicknesses of 80 -125 mils (2-3 mm) • 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 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 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 verticals or on floors. Apply by flat trowel in 2 separate layers to insure a pinhole free lining. Each pass should be ½ of the specified lining thickness. Wet Tufchem II Membrane does not bond well to cured membrane and care must be taken to observe intercoat adhesion procedures. Tufchem II 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 very large surface areas consider the use of CE-228Tufchem II Spray Grade by spray. 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	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.	

PACKAGING & ESTIMATING

Product	Code	Packaging
Tufchem II Membrane	19683	4 gallon unit
Tufchem II Membrane Part A only	21924	4 gallon pail
Urethane Asphalt Hardener (packaged for air shipment)	29488-341	341 gram can

Theoretical Coverage	50 sf/per 4 gal unit at 125 mils (1/8" or 3.2 mm) 75 sf per 4 gal unit at 90 mils (3/32" or 2.4 mm) 100 sf per 4 gal unit at 60 mils (1/16" or 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 ErgonArmor.

TYPICAL PHYSICAL PROPERTIES

Property	Typical Value
Color	Black
Density	8.5 lb/US gallon (1019 kg/m ³)
Elongation, ASTM D412	>125%
Tensile strength, ASTM D412	>200 psi (1.38 MPa)
Bond to carbon steel, ASTM D412	>125 psi (0.87 MPa)
Permeance, ASTM C96, method E	0.24 perms
Mix ratio by weight, component A: component B	45:1
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)

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