

CE-196
09/13 Supersedes 08/04

TUFCHEM[®] II MEMBRANE

DESCRIPTION

TUFCHEM II Membrane is a chemically cured, elastomeric urethane asphalt membrane. It can be used as a stand alone lining to protect metal, concrete, and masonry substrates from chemical attack and physical abrasion within its limitations. TUFCHEM II can also be used as an underlying membrane in conjunction with chemical-resistant masonry or polymer concrete overlays. TUFCHEM II is generally specified to be installed in 2 or 3 passes for a total nominal 80-125 mil WFT lining thickness. For concrete substrates, use with PENNTROWEL[®] Epoxy Primer (CE-139). On steel substrates, no primer is required for adhesion, but PENNGUARD Block Primer (CE-227) is recommended to prevent re-rusting of the blasted surface. **For complete installation instructions, consult Corrosion Engineering installation specifications [CES-326](#) and [CES-334](#).**

AREAS OF USE

TUFCHEM II provides a positive barrier to structures from corrosive chemicals, gases, and moisture. Depending on the environment, it may be used as a lining for concrete or steel tanks, sumps, or stacks, or as part of a lining system in combination with chemical-resistant brickwork, inorganic monolithic linings or polymer concretes for floors, wet scrubber ductwork, vessels and tanks, etc. It is not recommended where oils or organic solvents are present. Typical applications include both interior and exterior chemical containment linings, clarifiers, thickeners, and tank linings. TUFCHEM II Membrane has also been successfully used to do emergency field repairs to sheet rubber membrane linings.

OUTSTANDING FEATURES

- Cold applied by trowel, squeegee or brush.
- Rubber like texture provides very good physical abrasion resistance.
- Remains elastomeric to temperatures as low as -40°F (-40°C). High elongation can accommodate movement caused by thermal and mechanical stresses.
- Provides an excellent barrier to water vapor.
- Will bridge hairline cracks in concrete and masonry construction.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	TUFCHEM II Membrane
Color and Appearance	Black elastomeric rubber
Elongation at 74°F (fully cured) (ASTM D412)	147%
Bond Strength to Carbon Steel (ASTM D412)	135 psi (0.93 MPa)
Tensile Strength at 74°F (fully cured) (ASTM D412)	216 psi (1.5 MPa)
Modulus of Elasticity @ 100% Elongation (ASTM D412)	60 psi (0.4 MPa)
Abrasion Resistance to Sandblasting (FED-TT-C-520)	Excellent
Service Temperature: - If directly exposed - Behind chemical resistant masonry / monolithic	-40°F to 140°F (-40°C to 66°C) -40°F to 200°F (-40°C to 93°C)
Permeance (ASTM C96, Method E)	0.245 Perms
Mix Ratio - Component A : Component B	46:1 by weight
Pot Life (Approximately)	45 to 60 min @ 70°F (21°C)

ESTIMATING/PACKAGING THEORETICAL QUANTITIES – NO OVERAGE ALLOWANCE

PRODUCT	CODE	PACKAGING	COVERAGE
TUFCHEM II	19683	4 Gallon unit	50 SF per 4 gal unit @ 125 mils WFT 75 SF per 4 gal unit @ 90 mils WFT 100 SF per 4 gal unit @ 60 mils WFT
TUFCHEM II (for air freight shipments)	7060-40	4 Gallon unit	

SAFETY PRECAUTIONS / DISCLAIMER

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 [material safety data sheets](#) before using. While all statements, technical information, and recommendations contained herein are based on information our company believes to be reliable, nothing contained herein shall constitute any warranty, express or implied, with respect to the products and/or services described herein and any such warranties are expressly disclaimed. We recommend that the prospective purchaser or user independently determine the suitability of our product(s) for their intended use. No statement, information or recommendation with respect to our products, whether contained herein or otherwise communicated, shall be legally binding upon us unless expressly set forth in a written agreement between us and the purchaser/user.



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