

TECHNICAL DATA

LIQUID BOOT® Trowel Grade

TROWEL-APPLIED GAS VAPOR BARRIER

DESCRIPTION

Liquid Boot® is a trowel-applied, water-based membrane containing no VOCs, which provides a barrier against vapor intrusion into structures. Liquid Boot® Trowel Grade is installed in conjunction with the Liquid Boot® gas vapor barrier to minimize vapor and nuisance water migration. Liquid Boot® Trowel Grade offers additional protection around penetrations, providing for a fully-adhered gas vapor barrier system.

APPLICATIONS

Liquid Boot® Trowel Grade is used for detailing around penetrations and for repairs in Liquid Boot® gas vapor barrier applications.

BENEFITS

- ▶ Trowel application provides excellent sealing of penetrations
- ▶ Seamless, monolithic membrane means no mechanical fastening required
- ▶ Protection from methane gas, VOCs, chlorinated solvents and other contaminants
- ▶ Also protects against water vapor

LIMITATIONS

- ▶ Do not allow materials to freeze in containers.
- ▶ Store Liquid Boot® Trowel Grade at site in strict compliance with manufacturer's instructions.
- ▶ When applying material below 45°F, contact your local technical sales manager.



In addition to superior chemical resistance performance, Liquid Boot® Trowel Grade effectively seals penetrations, which are considered critical vapor intrusion pathways.

PACKAGING

Liquid Boot® Trowel Grade is available in the following packaging options:

- ▶ 1 Gallon Bucket
- ▶ 8 oz. bottle of catalyst (unclued)

TESTING DATA

CHEMICAL & PHYSICAL PROPERTIES		
CHEMICAL PROPERTY	TEST METHOD	RESULT
Acid Exposure (10% H ₂ SO ₄ for 90 days)	ASTM D543	Less than 1% weight change
Benzene Diffusion Test	Tested at 43,000 ppm	2.90 x 10 ⁻¹¹ m ² /sec
Chemical Resistance: VOCs, BTEXs (tested at 20,000 ppm)	ASTM D543	Less than 1% weight change
Chromate Exposure (10% Chromium6+ salt for 31 days)	ASTM E96	Less than 1% weight change
Diesel (1000 mg/l), Ethylbenzene (1000 mg/l), Naphthalene (5000 mg/l) and Acetone (500 mg/l) Exposure for 7 days	ASTM D543	Less than 1% weight change; Less than 1% tensile strength change
Hydrogen Sulfide Gas Permeability	ASTM D1434	None Detected
Methane Permeability	ASTM 1434-82	Passed*
Microorganism Resistance	ASTM D4068-88	Passed*
Oil Resistance	ASTM D543-87	Passed*
PCE Diffusion Coefficient	Tested at 6,000 mg/m ³	2.74 x 10 ⁻¹⁴ m ² /sec
Radon Permeability	Tested by US Dept. of Energy	Zero permeability to Radon (222Rn)
TCE Diffusion Coefficient	Tested at 20,000 mg/m ³	8.04 x 10 ⁻¹⁴ m ² /sec

2870 Forbs Avenue, Hoffman Estates, IL 60192
800.527.9948 | <http://remediation.cetco.com>

IMPORTANT: The information contained herein supersedes all previous printed versions, and is believed to be accurate and reliable. For the most current information, please visit remediation.cetco.com. CETCO accepts no responsibility for the results obtained through application of this product. CETCO reserves the right to update information without notice.

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PHYSICAL PROPERTY	TEST METHOD	RESULT
Accelerated Weathering and Ultraviolet Exposure	ASTM D822	No adverse effect after 500 hours
Air Infiltration	ASTM E283-91	0 cfm/sq. ft.
Bonded Seam Strength Tests	ASTM D6392	Passed*
Coefficient of Friction (with geotextile both sides)	ASTM D5321	0.72
Cold Bend Test	ASTM D146	Passed. Ø cracking at -25° F
Dead Load Seam Strength	City of Los Angeles	Passed*
Electric Volume Resistivity	ASTM D257	1.91 x 1010 ohms-cm
Elongation	ASTM D412	1,332% Ø reinforcement, 90% recovery
Elongation w/8 oz. non-woven geotextile both sides	ASTM D751	100% (same as geotextile tested separately)
Environmental Stress-Cracking	ASTM D1693-78	Passed*
Flame Spread	ASTM E108	Class A with top coat (comparable to UL790)
Freeze-Thaw Resistance (100 Cycles)	ASTM A742	Meets criteria. Ø spalling or disbondment
Heat Aging	ASTM D4068-88	Passed*
Hydrostatic Head Resistance	ASTM D751	Tested to 138 feet or 60 psi
Potable Water Containment	ANSI/NSF 61	NSF Certified for tanks >300,000 gal
Puncture Resistance w/8 oz. non-woven geotextile both sides	ASTM D4833	286 lbs. (travel of probe = 0.756 in)
Sodium Sulfate (2% water solution)	ASTM D543, D412, D1434	Less than 1% weight change
Soil Burial	ASTM E154-88	Passed
Tensile Bond Strength to Concrete	ASTM D413	2,556 lbs/ft ² uplift force
Tensile Strength	ASTM D412	58 psi without reinforcement
Tensile Strength w/8 oz. non-woven geotextile both sides	ASTM D751	196 psi (same as geotextile tested separately)
Toxicity Test	22 CCR 66696	Passed
Water Penetration Rate	ASTM D2434	<7.75 x 10 ⁻⁸ cm/sec
Water Vapor Permeability	ASTM E96	0.24 perms
Water Vapor Transmission	ASTM E96	0.10 grains/h-ft ²

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