



TECHNICAL MEMORANDUM:

Is Geo-Seal® the same as Nitra-Seal®?

September 29, 2020

OVERVIEW

Geo-Seal is tested, proven, and trusted by environmental engineers, regulators, and property developers throughout the United States. With over 50 million square feet of successful installations, EPRO has performed extensive laboratory testing on Geo-Seal throughout its 20-year history to prove efficacy and gain critical industry related approvals. EPRO utilized industry accepted ASTM standards as it is industry practice in the building materials industry. This testing is not currently published or has not been performed on Nitra-Seal by Land Science.

TESTING COMPARISON BETWEEN GEO-SEAL AND NITRA-SEAL

	Testing Method	Geo-Seal	Land Science Nitra-Seal
Total Composite System Testing			
System Thickness		96 mils	81 mils
Polymer Modified Asphalt Thickness		60 mils	40 mils
Puncture Resistance	ASTM D1709	310 lbf	Not Published
Tensile Strength	ASTM D412	662 psi	Not Published
Peel Adhesion of System to Concrete	ASTM D903	8lbf/in	Not Published
Hydrostatic Head Resistance (Required for Waterproofing)	ASTM D5385	100 psi (231 ft)	Not Published
Water Vapor Transmission	ASTM E96	0.033 perms	Not Published
Methane Transmission	ASTM D1434	Passed	Not Published
Soil Burial	ASTM D4068	Passed	Not Published
Heat Aging	ASTM D4068	Passed	Not Published
Environmental Stress Cracking	ASTM D1693	Passed	Not Published
Oil Resistance	ASTM D543 & D412	Passed	Not Published
Approved for use with potable water	NSF 61	Approved	Not Published
Polymer Modified Asphalt Testing			
Tensile Strength	ASTM 412	32 psi	TBD ¹
Elongation	ASTM 412	4140%	TBD ¹
Peel Adhesion to Concrete	ASTM C 836	11 lbf/inch	TBD ¹
Hydrostatic Head Resistance	ASTM D 751	26 psi	TBD ¹
Water Vapor Transmission	ASTM E 96	0.21 perms	TBD ¹
Methane Transmission Rate	ASTM D 1434	Passed	TBD ¹
Diffusion Testing			
TCE Diffusion Coefficient	Geokinetics	$7.1 \times 10^{-19} \text{ m}^2/\text{sec}$	TBD ¹
Benzene Diffusion Coefficient	Geokinetics	$7.1 \times 10^{-19} \text{ m}^2/\text{sec}$	TBD ¹
Formal Written Approvals			
City of Los Angeles Approval		Approved	Not Approved
County of Los Angeles Approval		Approved	Not Approved
New York School Construction Authority		Approved	Not Approved

Notes:

¹ - Per the Nitra-Core Data Sheet downloaded on 9/29/20, LINK HERE. "Not Published" means the information is not found on www.landsciencetech.com

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