

## Description

MonoBase™ is a 30-mil composite geomembrane, designed to act as a stand-alone contaminant vapor barrier for sites with low-level contamination risk. Improving upon thin-mil plastic sheeting in both protectiveness and robustness, MonoBase contains a chemically resistant metalized layer completely encapsulated between two polyethylene (PE) layers. The strength and puncture resistance of MonoBase is further improved with the inclusion of an embedded reinforcing grid as well as geotextile bonded on one side of the membrane. MonoBase is the protective layer used in the MonoShield® system, and is readily installed with Nitra-Core™, a spray-applied, nitrile-modified asphalt, to seal the seams, penetrations, and terminations.



## Installation

Please refer to manufacturer specifications for all installation requirements. MonoBase is installed as a component of the MonoShield vapor barrier system. Subgrade surface should be compacted to local building code requirements. Remove any materials that may puncture MonoBase. MonoBase is installed with the black geotextile facing down, and the seams are overlapped a minimum of 6" with 60 mil of Nitra-Core applied between the overlapped sheets. Ensure any ponding water and debris are removed prior to applying Nitra-Core to MonoBase.

## Packaging and Availability

Property	Value
Dimensions	9.84' x 164' rolls
Weight	143 lbs.

Contact Land Science for a list of certified applicators.

## MonoBase Properties

Property	Test Method	Typical Value
Membrane Material	-	PE/metalized film/PE
Reinforcement Grid	-	PET
Geotextile material	-	PP
Color	-	Silver/Black
Weight	-	13 oz/sy
Composite Thickness	ASTM D5199	30 mil
Membrane thickness	ASTM D5199	22 mil
Tensile Strength <sup>1</sup>	ASTM D751	242 lbs
	ASTM D7004	257 lbs
Elongation <sup>1</sup>	ASTM D751	51%
	ASTM D7004	20%
Puncture Resistance	ASTM D4833	68 lbs
Tear Resistance <sup>1</sup>	ASTM D5884	28 lbs
Water Vapor Transmission	ASTM E963	0.012 grains/(hr-ft <sup>2</sup> )
Water permeance	ASTM E963	0.019 US Perms
Methane Gas Permeance	ASTM D1434	<11 mL(STP)/(m <sup>2</sup> ·d·atm) <sup>4</sup>
Benzene Diffusion Coefficient	GeoKinetics <sup>2</sup>	2.1 x 10 <sup>-18</sup> m <sup>2</sup> /s
TCE Diffusion Coefficient	GeoKinetics <sup>2</sup>	2.9 x 10 <sup>-17</sup> m <sup>2</sup> /s

1. Values are an average of the machine direction and the transverse direction test results.

2. A method comparable to ISO 15105-2, performed by GeoKinetics, Inc., Irvine, CA.

3. Reported by equivalent method, EN1931.

4. Test results were below the method detection limit.