

## CARLISLE .045 and .060 GeoEPDM POND LINER

### GENERAL

Carlisle's GeoEPDM Pond Liner is a nominal 45-mil and 60-mil thick non-reinforced Ethylene Propylene Diene Terpolymer (EPDM) based elastomeric waterproofing liner for use in recreational, commercial aquaculture and industrial water containment applications. The membrane is specifically formulated for long-term use in buried or exposed geomembrane applications. GeoEPDM Pond Liner has been formulated to be compatible with aquatic life\* and is NSF® approved for potable drinking water. GeoEPDM has a wide variety of applications including the lining of agricultural waste water containment, commercial and industrial reservoirs, catch basins, stormwater retention ponds, canals and aquaculture, including fish hatcheries.

### INSTALLATION

Installation procedures vary as to the type of application employed and the specific job requirements. When installed correctly, it is difficult to find a more efficient water barrier. Surfaces on or against where GeoEPDM Pond Liner membrane is to be applied must be smooth, free of fins, sharp edges, loose and foreign materials, oil and grease. GeoEPDM can be easily repaired in the field by the owner without specialized tools or training. Consult current specifications and details for complete installation information.

### FEATURES:

- The only EPDM with ANSI/NSF-61 Drinking Water contact certification Systems (Potable Grade)
- Superb elongation and lay flat characteristics
- Excellent low temperature impact resistance
- Exceptional resistance to solar UV, ozone, and oxidation
- Low water vapor permeance and water absorption
- Quick seaming process - no specialized or expensive tools required
- 20 year material warranty available
- Large prefabricated panels available in custom sizing

#### GeoEPDM 45-mil sizes available:

Width : 5–50 feet (1.4 – 15.2 meters)  
Length: 50–200 feet (15.2 – 61 meters)  
Weight: 0.27 lbs/f<sup>2</sup> (1.32 kg/m<sup>2</sup>)  
Specific Gravity: 1.16 g/cc

#### GeoEPDM 60-mil sizes available:

Width: 5–50 feet (1.4 – 15.2 meters)  
Length: 50, 100, 150 feet (15.2 – 61 meters)  
Weight: 0.36 lbs/f<sup>2</sup> (1.76 kg/m<sup>2</sup>)  
Specific Gravity: 1.16 g/cc



# CARLISLE'S GEO MEMBRANE

GeoEPDM Physical Property	Test Method	Minimum Properties English		Minimum Properties Metric	
		45 mil	60 mil	1.14 mm	1.52 mm
Thickness Tolerance	ASTM D 5199	45 mils ± 10%	60 mils ± 10%	1.14 mm ± 10%	1.52 mm ± 10%
Break Strength	ASTM D 882	55 lb/in	65 lb/in	9.6 kN/m	11.4 kN/m
Break Elongation	ASTM D 882	500%	500%	500%	500%
Tear Resistance min.	ASTM D 1004	9 lbs.	12 lbs.	40 N	53 N
Puncture Resistance	ASTM D 4883	28 lbs.	35 lbs.	125 N	155 N
Brittleness Temperature max.	ASTM D 746	-49 °F	-49 °F	-45 °F	-45 °F
Water Vapor Permeance max.	ASTM E 96 (Proc. B or BW)	2.0 perms	2.0 perms	2.0 perms	2.0 perms
Resistance to Water Absorption after 7 d immersion @ 158 °F (°C), max.	ASTM D 471	+4.0 % -2.0 %	+4.0 % -2.0 %	+4.0 % -2.0 %	+4.0 % -2.0 %
Resistance to Heat Aging (Properties after 170 hours @ 212° F (100° C)) 1. Tensile Break Strength 2. Elongation, ultimate min.	ASTM D 882	50 lb/in 450%	60 lb/in 450%	8.8 kN/m 450%	10.5 kN/m 450%
Multiaxial Elongation	ASTM D 5617	100%	100%	100%	100%
Dimensional Stability 168 hrs, 212 °F (100 °C)	ASTM D 1204	0.75%	0.75%	0.75%	0.75%
Ozone Resistance Condition after exposure to 100 pphm ozone in air for 168 hrs @ 140°F (40°C) sample under 50% strain)	ASTM D 1149	No Cracks	No Cracks	No Cracks	No Cracks
Resistance To Outdoor (Ultraviolet) Weathering <sup>1</sup> , Xenon-Arc, 10,080 kJ/m <sup>2</sup> exposure @ 80°C (176°F) Black panel temperature, visual examination 7X magnification	ASTM G 155	No Cracks	No Cracks	No Cracks	No Cracks
Toxicity to Fish*	ASTM E 729(96) (modified)	Passes	Passes	Passes	Passes
Shore A Durometer	ASTM D 2240	60±10	60±10	60±10	60±10

<sup>1</sup>Approximately equal to 8,000 hours at 0.35W/m<sup>2</sup> irradiance.

\* It is recommended that customers test GeoEPDM before use to ensure it is compatible with the specific aquatic species for the proposed application.

## CARLISLE GEOMEMBRANES FOR AMERICA AND THE WORLD

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