



Weld Easier. Install Faster. Contain Better.*

RhinoMat® 1000 is a nominal 40 mil (1.0 mm) thick Reinforced Composite Polyethylene (RCPE) geomembrane compliant with GRI-GM30 for use in water containment and retention applications and specifically designed using no post-consumer resin. The durable, stress crack resistant, lightweight construction of RhinoMat® 1000 provides outstanding performance in many different climates and environmental conditions.

APPLICATIONS

RhinoMat® 1000's proprietary construction using a woven core scrim and engineered LDPE/LLDPE coating and film make it ideal for containment applications such as agriculture, aquaculture, mining and energy, secondary containment, wastewater lagoons, and landfill covers. Retention applications include golf course ponds, stormwater management, irrigation storage, canal liners, and potable water reservoirs.

PROPERTY	TEST METHOD	CERTIFIED VALUE ¹		TESTING FREQUENCY		
		IMPERIAL	METRIC	IMPERIAL	METRIC	
Thickness	ASTM D751	36 mil	0.91 mm	Every Roll	Every Roll	
Mass per Area	ASTM D751	18 oz/yd ²	610 g/m ²	Every Roll	Every Roll	
Strip Tensile Strength and Elongation ²	ASTM D7003	MD	250 lb _f /in, 20%	44 kN/m, 20%	20,000 lb	9,000 kg
		CD	250 lb _f /in, 20%	44 kN/m, 20%	20,000 lb	9,000 kg
Tongue Tear ²	ASTM D5884	MD	50 lb _f	225 N	20,000 lb	9,000 kg
		CD	50 lb _f	225 N	20,000 lb	9,000 kg
CBR Puncture ³	ASTM D6241	1,000 lb _f	4,400 N	45,000 lb	20,000 kg	
Index Puncture ³	ASTM D4833	200 lb _f	890 N	45,000 lb	20,000 kg	
Hydrostatic Resistance ⁴	ASTM D751	700 lb _f /in ²	4,800 kPa	45,000 lb	20,000 kg	
Dimensional Stability ⁵	ASTM D1204	±3% (maximum)		45,000 lb	20,000 kg	
Water Vapor Transmission ^{6,7}	ASTM E96	0.3 g/m ² -day		Once per Formulation		
High Pressure Oxidation Induction Time ^{6,8}	ASTM D5885	>400 minutes		Once per Formulation		

PROPERTY	TEST METHOD	TYPICAL VALUE		TESTING FREQUENCY		
		IMPERIAL	METRIC	IMPERIAL	METRIC	
Grab Strength ²	ASTM D7004	MD	460 lb _f	2,500 N	20,000 lb	9,000 kg
		CD	400 lb _f	1,760 N		
Trapezoidal Tear ²	ASTM D4533	MD	65 lb _f	290 N	20,000 lb	9,000 kg
		CD	65 lb _f	290 N		
Carbon Black Content	ASTM D4218	>2%		Periodic		
Low Temperature Brittleness	ASTM D2136	Pass @ -60 °F	Pass @ -51 °C	Periodic		

PROPERTY	TEST METHOD	CERTIFIED VALUE ¹		TESTING FREQUENCY	
		IMPERIAL	METRIC	IMPERIAL	METRIC
Strip Tensile Strength & Elongation ^{2,6}	ASTM D7003	MD	>50% retained	Once per Formulation	
		CD			
High Pressure Oxidation Induction Time ^{6,8}	ASTM D5885	>50% retained		Once per Formulation	

¹ All values are minimum, or minimum average, except Dimensional Stability and Water Vapor Transmission, which are maximum values.

² MD & CD refers to machine and cross or transverse machine direction, respectively.

³ The film side of the geomembrane is placed to the probe.

⁴ Hydrostatic Resistance is determined in general accordance with ASTM D751, Procedure A placing the film side down in the Mullen® Model HAH testing device.

⁵ Specimens placed in oven at 100° ± 1 °C for 60 minutes. A negative (-) result indicates contraction and positive (+) result indicates expansion.

⁶ Results provided upon request.

⁷ Water Vapor Transmission is performed in general accordance with ASTM E96, Procedure BW at 23° ± 0.5 °C temperature and 50% ± 5% relative humidity. The film side of the geomembrane facing the contained liquid.

⁸ Specimens are homogenized using one of the methods described in Appendix X1, X2, or X3 of ASTM D5885.

⁹ 10,000-hour UV Resistance by the fluorescent light method conducted in general accordance with ASTM D7238 using a 20-hour UV cycle at 75 °C followed by 4-hour condensation at 60 °C.

Responsibility for product fitness resides with the design professional and user who assume full responsibility for the final determination of suitability for application. The information contained herein is accurate and reliable to the best of our knowledge and provided for reference purposes only. All values are typical minimum or maximum results and are not intended as limiting specifications or intended as a warranty of guarantee. Owens Corning provides written warranties for many of its products, and such warranties take precedence over the statements contained herein.

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Geosynthetic Materials Association



Geosynthetic Accreditation Institute GAI – LAP Approved Laboratory No. 84

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