



RhinoMat® 1000 a 40 mil (1.0 mm) thick, polyethylene Reinforced Composite Geomembrane (RCG), specifically designed for use in water retention and containment applications to **Weld Easier. Install Faster. Contain Better.** For applications where retention and containment are critical, the durable, stress crack resistant, lightweight construction of RhinoMat® 1000 provides maximum performance in many different climates and environmental conditions.

## RhinoMat® 1000 Applications:

### Containment:

- Agriculture & Aquaculture
- Mining & Energy
- Secondary Containment
- Wastewater Lagoons
- Landfill Covers

### Retention:

- Golf Course Ponds
- Stormwater Management
- Irrigation Storage
- Canal Liners
- Potable Water Reservoirs

RhinoMat® 1000 conforms to the properties below, and is manufactured at an Owens Corning facility having achieved ISO 9001:2000 certification. Owens Corning tests RhinoMat® 1000 both through independent, third party laboratories, and through internal quality control testing in laboratories accredited through the Geosynthetic Accreditation Institute – Laboratory Accreditation Program (GAI-LAP).

PROPERTY	TEST/METHOD	TYPICAL VALUE <sup>1</sup>		MIN AVE. ROLL VALUE <sup>2</sup>	
		English	Metric	English	Metric
Weight	ASTM D5261	20.8 oz./yd <sup>2</sup>	705 g/m <sup>2</sup>	20.3 oz./yd <sup>2</sup>	688 g/m <sup>2</sup>
Thickness	ASTM D751	40 mil	1.01 mm	36 mil	0.92 mm
Strip Tensile Strength (MD)	ASTM D7003	303 lbf	1348 N	285 lbf	1268 N
Strip Tensile Strength (CD)	ASTM D7003	265 lbf	1179 N	259 lbf	1152 N
Strip Tensile Elongation (MD)	ASTM D7003	22%		20%	
Strip Tensile Elongation (CD)	ASTM D7003	22%		20%	
Tongue Tear (MD)	ASTM D5884	60 lbf	302 N	50 lbf	222 N
Tongue Tear (CD)	ASTM D5884	62 lbf	334 N	50 lbf	222 N
CBR Puncture	ASTM D6241	1400 lbf	6228 N	1360 lbf	6050 N
Index Puncture Resistance	ASTM D4833	242 lbf	1076 N	220 lbf	979 N
Hydrostatic Resistance	ASTM D751	740 lb/in <sup>2</sup>	5102 kPa	707 lb/in <sup>2</sup>	4875 kPa
Dimensional Stability <sup>3</sup>	ASTM D1204	2.86%			
Water Vapor Transmission <sup>3</sup>	ASTM E96	0.08 g/m <sup>2</sup> -day			
UV Resistance (Fluorescent Light Method) <sup>4</sup>	ASTM D7238				
a) Strength & Elongation retained after 10,000 light hours	ASTM D7003	> 90% retained		> 90% retained	
b) Response to bending	GRI GM-16	no cracking		no cracking	
Grab Tensile Strength (MD)	ASTM D751	463 lbf	2504 N		
Grab Tensile Strength (CD)	ASTM D751	397 lbf	1766 N		
Trapezoidal Tear (MD)	ASTM D4533	73 lbf	325 N		
Trapezoidal Tear (CD)	ASTM D4533	69 lbf	307 N		
Seam Strength (Shear) <sup>5</sup>	ASTM D7747	165 lbf	734 N		
Seam Strength (Peel) <sup>6</sup>	ASTM D7747	30 lbf	133 N		
Hydraulic Conductivity	ASTM E96 ('B')	1.0 x 10 <sup>-14</sup> cm/sec			
Carbon Black Content	ASTM D4218	> 2%			
Accelerated UV Weathering <sup>7</sup>	ASTM G154	> 90% @ 10,000 hrs.			
Low Temperature Brittleness	ASTM D2136	Pass (@ -60°F)	Pass (@ -51°C)		
Standard Roll Width		12 ft	3.7 m		
Standard Roll Length		1250 ft	381 m		
Approximate Roll Weight		2200 lb	998 kg		

Effective Date: June 1, 2017

#### Notes:

- <sup>1</sup>Typical values represent an average test result for the sample size, with + 10% variance
- <sup>2</sup>Minimum Average Roll Values (MARV) are shown (unless otherwise noted), in accordance with GRI-GM30
- <sup>3</sup>Dimensional Stability and Water Vapor Transmission values shown are maximum test result values
- <sup>4</sup>Test samples were exposed to UV radiation using this method prior to evaluating changes in material properties
- <sup>5</sup>Test values reflect single-track wedge welding at approximately 750° F and 14 ft/sec
- <sup>6</sup>Test values reflect single-track wedge welding at approximately 750° F and 14 ft/sec
- <sup>7</sup>Test valued based on A-340 lamps, 8 hours UV @ 60° C, 4 hours condensation @ 40° C

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# RhinoMat® 1000

## WELD EASIER. INSTALL FASTER. CONTAIN BETTER.™

For water retention, containment, aquaculture, pond and canal lining applications

**GRI-GM30**  
 COMPLIANT

# BE WATER SMART.

RhinoMat® 1000 is a 40 mil (1.0 mm) geomembrane specifically designed for use in water retention and containment applications to **Weld Easier. Install Faster. Contain Better.**™ For applications where containment is critical, the durable, stress crack resistant, lightweight construction of RhinoMat® geomembrane provides maximum performance in all climates and environmental conditions.

## RhinoMat® 1000 is a Smart Choice

### Features Strong Construction

- 40 mil (1.0 mm), our thickest geomembrane
- Inner woven core layer provides dimensional stability with impressive tensile and tear strength
- Puncture, abrasion and chemical resistant construction
- Outstanding hydrostatic resistance
- All layers contain UV protection

### Meets Industry Standards

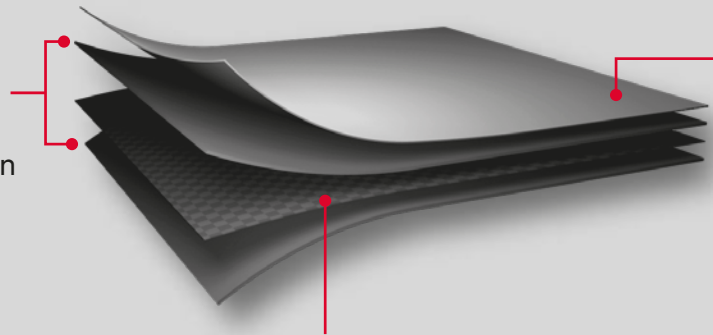
- GRI-GM30 Compliant – RhinoMat is the first portfolio of products to meet this standard
- Non-toxic, no PVC or other hazardous materials used in the construction of the geomembrane
- Impressive UV, ozone and oxidation resistance

### Provides Warranty Protection

- Standard warranty: 20-years buried, 10-years exposed
- Available special registered warranty (clear water applications): 25-years buried, 20-years exposed



**ENGINEERED LLDPE/LDPE COATING**  
For flexibility, chemical resistance and protection against UV, ozone and oxidation



**HDPE HIGH STRENGTH WOVEN CORE**  
For outstanding dimensional strength and stability

**SurFlex™**

UV resistant SurFlex™ technology provides excellent welding characteristics, reduces stress cracking and makes it easy to seam in the factory or field

## WELD EASIER.



- Made with SurFlex™ technology, a polyolefin blend surface film which allows for superior thermal fusion welding
- Designed for optimal welding temperature and speed to create exceptional seams
- Flexible construction enables efficient seaming of a wide variety of panel shapes and sizes

## INSTALL FASTER.



- Wide width flexible sheets facilitate factory fabrication to reduce field seaming time
- Factory fabricated seaming capability ensures higher quality welds which require fewer time-consuming destructive field tests
- Allows for large factory fabricated panels to be customized to accelerate project field installation

## CONTAIN BETTER.



- High strength woven core and engineered coatings provide outstanding longevity and chemical resistance
- Meets or exceeds properties of Category 1 (Severe) of the GRI-GM30 specification from the Geosynthetic Institute (GSI)
- Hydrostatic, puncture, and abrasion resistance stands up to the toughest installation, maintenance and environmental stresses

