



# RhinoMat<sup>®</sup> 1000

**WELD EASIER. INSTALL FASTER. CONTAIN BETTER.<sup>™</sup>**

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

**GRI-GM30**

COMPLIANT

# BE WATER SMART.

RhinoMat 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

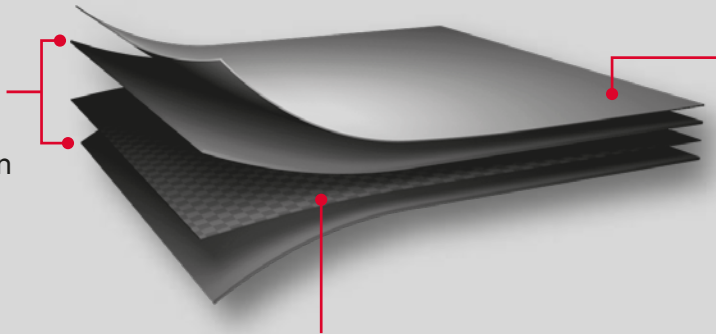
- GRI-GM30 Compliant – RhinoMat is the first portfolio of products to meet this standard
- Non-toxic, no PVC or other hazardous materials used in the construction of the geomembrane
- Impressive UV, ozone and oxidation resistance

### 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.

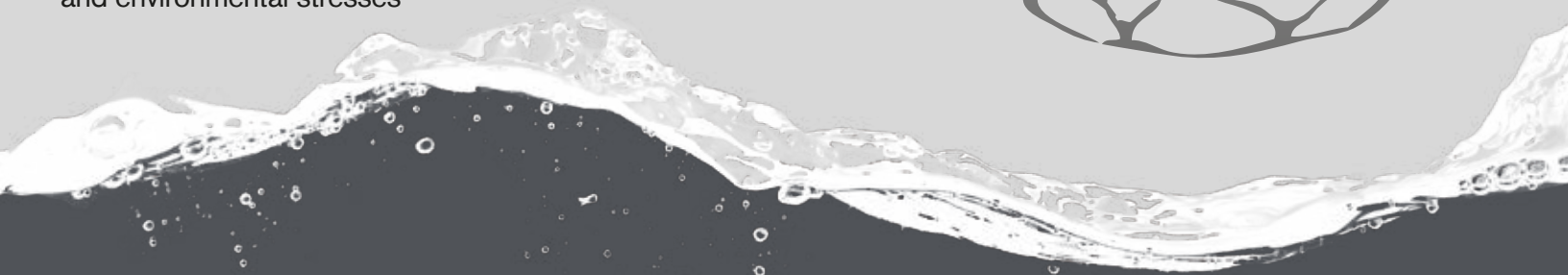


- Wide width flexible sheets facilitate factory fabrication to reduce field seaming time
- Factory fabricated seaming capability ensures higher quality welds which require fewer time-consuming destructive field tests
- Allows for large factory fabricated panels to be customized to accelerate project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






# RhinoMat® 1000

## 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

### Available Sizes & Color:

- Up to 144" wide rolls (3.66m)
- 40 mil (1.0 mm) thickness
- Black/Black

PROPERTY	TEST/METHOD	RHINOMAT 1000 TYPICAL VALUE
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Coatings		Two Sides LDPE and SurfFlex totaling 14 mil (0.36mm)
SurFlex Film Technology		Proprietary Polyolefin Blend
Weight	ASTM D5261	20.8 oz/yd <sup>2</sup> (705 gsm)
Nominal Thickness	ASTM D1777	40 mil (1.0 mm)
Hydraulic Conductivity	ASTM E96/B	1.15E-15 cm/sec (calculated k value)
Hydrostatic Resistance (Typical)	ASTM D751 Method A	800 psi (5517 kPa)
Puncture Resistance	FTMS 101C/Method 2031	280 lbf (127 kgf)
Low Temperature Flexibility	ASTM D2136	Pass -60 °F (-51 °C)
Mullen Burst	ASTM D751	800 Psi (5517 kPa)
Tensile Strength	ASTM D751/D7004	MD 418 lb (190 kg) / CD 385 lb (175 kg)
Trapezoidal Tear	ASTM D4533	MD 80 lb (36 kg)   CD 66 lb (30 kg)
Accel. UV Weathering	ASTM G154	>90% retained strength at 2000 hrs <sup>†</sup>

All values are ± 10%. <sup>†</sup>QUV A-340 lamps 8 hrs UV @ 60° C, 4 hrs condensation @ 40°. The test data is based on an average taken over several production runs and should not be considered or interpreted as minimum or maximum values. Values are typical data and not limiting specifications.



**Geosynthetic  
Accreditation Institute**  
GAI - LAP Approved Laboratory

## RhinoMat 1000 Geosynthetic Institute GRI-GM30 standard specification

Property & Units	ASTM or GRI Test Methods	North American Units		International Units	
		Category 1 Severe (40 mil)	RM 1000 Test Results	Category 1 Severe (1 mm)	RM 1000 Test Results
Thickness (min. ave.)	ASTM D751	36 mils	40 mils	0.91 mm	1.02 mm
Weight (min. ave.)	ASTM D751	18 oz/yd <sup>2</sup>	21 oz/yd <sup>2</sup>	610 g/m <sup>2</sup>	712 g/m <sup>2</sup>
Strip Tensile Strength (min. ave.)	ASTM D7003	250 lb	303 lb	1100 N	1348 N
Strip Tensile Elongation (min. ave.)	ASTM D7003	20 %	21 %	20 %	21 %
Tongue Tear (min. ave.)	ASTM D5884	50 lb	55 lb	220 N	245 N
CBR Puncture (min. ave.)	ASTM D6241	1000 lb	1436 lb	4400 N	6388 N
Index Pin Puncture-Resistance (min. ave.)	ASTM D4833	220 lb	242 lb	980 N	1076 N
Hydrostatic Resistance (min. ave.)	ASTM D751	700 psi	769 psi	4800 kPa	3421 kPa
Dimensional Stability (% change) (max)	ASTM D1204	3 %	1.4 %	3 %	1.4 %
Water Vapor Transmission (WVT) (max. ave.)	ASTM E96	0.3 g/m <sup>2</sup> -day	Pass	0.3 g/m <sup>2</sup> -day	Pass
UV Resistance (fluorescent light method)	ASTM D7238				
(a) Strength and Elongation retained after 10,000 light hours	ASTM D7003	> 50% retained	Pass	> 50% retained	Pass
(b) Response to bending	GRI-GM16	no cracking	Pass	no cracking	Pass

See the following link for full GRI-GM30 spec: [http://www.geosynthetica.net/wp-content/uploads/GRI\\_GM30\\_SpecMay2016.pdf](http://www.geosynthetica.net/wp-content/uploads/GRI_GM30_SpecMay2016.pdf)  
RM1000 performance metrics provided by third party accredited lab.

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