



# RhinoMat® 500

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

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

**GRI-GM30**

COMPLIANT

# BE WATER SMART.

RhinoMat 500 is a 24 mil (0.61 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 500 is a Smart Choice

### Features Strong Construction

- A 24 mil (0.61 mm) 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

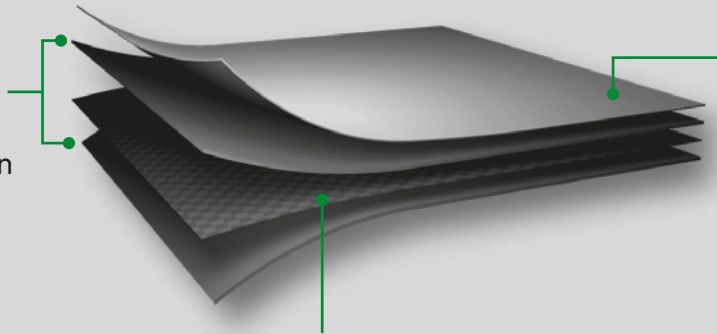
- GRI-GM30 Compliant – RhinoMat is the first portfolio of products to meet this standard
- Non-toxic, no PVC or other hazardous materials used in the construction of the geomembrane
- Impressive UV, ozone and oxidation resistance

### Provides Warranty Protection

- 10-years buried, 5-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 500 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)
- 24 mil ( 0.61 mm) thickness
- Black/Black

PROPERTY	TEST/METHOD	RHINOMAT 500 TYPICAL VALUE
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Coatings		Two Sides LDPE and Surflex
SurFlex Film Technology		Proprietary Polyolefin Blend
Weight	ASTM D5261	12.4 oz/yd <sup>2</sup> (425 gsm)
Nominal Thickness	ASTM D1777	25 mil (0.64 mm)
Hydrostatic Resistance	Water Column	2 x traditional coated woven geomembranes
Hydraulic Conductivity	ASTM D4491	0.0 cm/s (no flow)
Grab Tensile	ASTM D751	MD 385 lb (175 kg)   CD 308 lb (140 kg)
Trapezoidal Tear	ASTM D4533	MD 77 lb (35 kg)   CD 77 lb (35 kg)
Mullen Burst	ASTM D751	700 Psi (4828 kPa)
Puncture Resistance	ASTM D4833	190 lb (86 kg)
Low Temperature Flexibility	ASTM D2136	-60 °F (-50 °C)
Accel. UV Weathering	ASTM G154	>90% 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 500 Geosynthetic Institute GRI-GM30 standard specification

Property & Units	ASTM or GRI Test Methods	North American Units		International Units	
		Category 1 Severe (24 mil)	RM 500 Test Results	Category 1 Severe (0.61 mm)	RM 500 Test Results
Thickness (min. ave.)	ASTM D751	22 mils	28.9 mils	0.56 mm	0.73 mm
Weight (min. ave.)	ASTM D751	10 oz/yd <sup>2</sup>	12.25 oz/yd <sup>2</sup>	340 g/m <sup>2</sup>	415 g/m <sup>2</sup>
Strip Tensile Strength (min. ave.)	ASTM D7003	200 lb	265 lb	900 N	1179 N
Strip Tensile Elongation (min. ave.)	ASTM D7003	20 %	23 %	20 %	21 %
Tongue Tear (min. ave.)	ASTM D5884	50 lb	86 lb	220 N	385 N
CBR Puncture (min. ave.)	ASTM D6241	400 lb	1237 lb	1800 N	5502 N
Index Pin Puncture-Resistance (min. ave.)	ASTM D4833	160 lb	200 lb	700 N	890 N
Hydrostatic Resistance (min. ave.)	ASTM D751	300 psi	319 psi	2000 kPa	1419 kPa
Dimensional Stability (% change) (max)	ASTM D1204	3 %	Pass	3 %	Pass
Water Vapor Transmission (WVT) (max. ave.)	ASTM E96	0.5 g/m <sup>2</sup> -day	Pass	0.5 g/m <sup>2</sup> -day	Pass
UV Resistance (fluorescent light method)	ASTM D7238 ASTM D7003				
(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)  
RM500 performance metrics provided by third party accredited lab.

Contact your RhinoMat Sales Representative at:

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