



RhinoMat® 500 a 24 mil (0.61 mm) thick, polyethylene Reinforced Composite Geomembrane (RCG), specifically designed for use in water retention and containment applications to **Weld Easier. Install Faster. Contain Better.**™ The durable, stress crack resistant, lightweight construction of RhinoMat® 500 provides outstanding performance in many different climates and environmental conditions.



## 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

RhinoMat® 500 conforms to the properties below, and is manufactured at an Owens Corning facility having achieved ISO 9001:2000 certification. Owens Corning tests RhinoMat® 500 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	12.3 oz./yd <sup>2</sup>	415 g/m <sup>2</sup>	12 oz./yd <sup>2</sup>	405 g/m <sup>2</sup>
Thickness	ASTM D751	25.8 mil	0.66 mm	25 mil	0.64 mm
Strip Tensile Strength (MD)	ASTM D7003	265 lbf	1179 N	251 lbf	1117 N
Strip Tensile Strength (CD)	ASTM D7003	229 lbf	1019 N	211 lbf	939 N
Strip Tensile Elongation (MD)	ASTM D7003	22%			
Strip Tensile Elongation (CD)	ASTM D7003	21%			
Tongue Tear (MD)	ASTM D5884	56 lbf	249 N	50 lbf	222 N
Tongue Tear (CD)	ASTM D5884	56 lbf	249 N	50 lbf	222 N
CBR Puncture	ASTM D6241	1237 lbf	5502 N	1181 lbf	5253 N
Index Puncture Resistance	ASTM D4833	200 lbf	890 N	184 lbf	818 N
Hydrostatic Resistance	ASTM D751	525 lb/in <sup>2</sup>	3620 kPa	319 lb/in <sup>2</sup>	2199 kPa
Dimensional Stability <sup>3</sup>	ASTM D1204	3.00%			
Water Vapor Transmission <sup>3</sup>	ASTM E96	0.14 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	355 lbf	1579 N		
Grab Tensile Strength (CD)	ASTM D751	342 lbf	1521 N		
Trapezoidal Tear (MD)	ASTM D4533	63 lbf	280 N		
Trapezoidal Tear (CD)	ASTM D4533	63 lbf	280 N		
Seam Strength (Shear) <sup>5</sup>	ASTM D7747	80 lbf	356 N		
Seam Strength (Peel) <sup>6</sup>	ASTM D7747	20 lbf	89 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		1500 ft	610 m		
Approximate Roll Weight		2200 lb	975 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

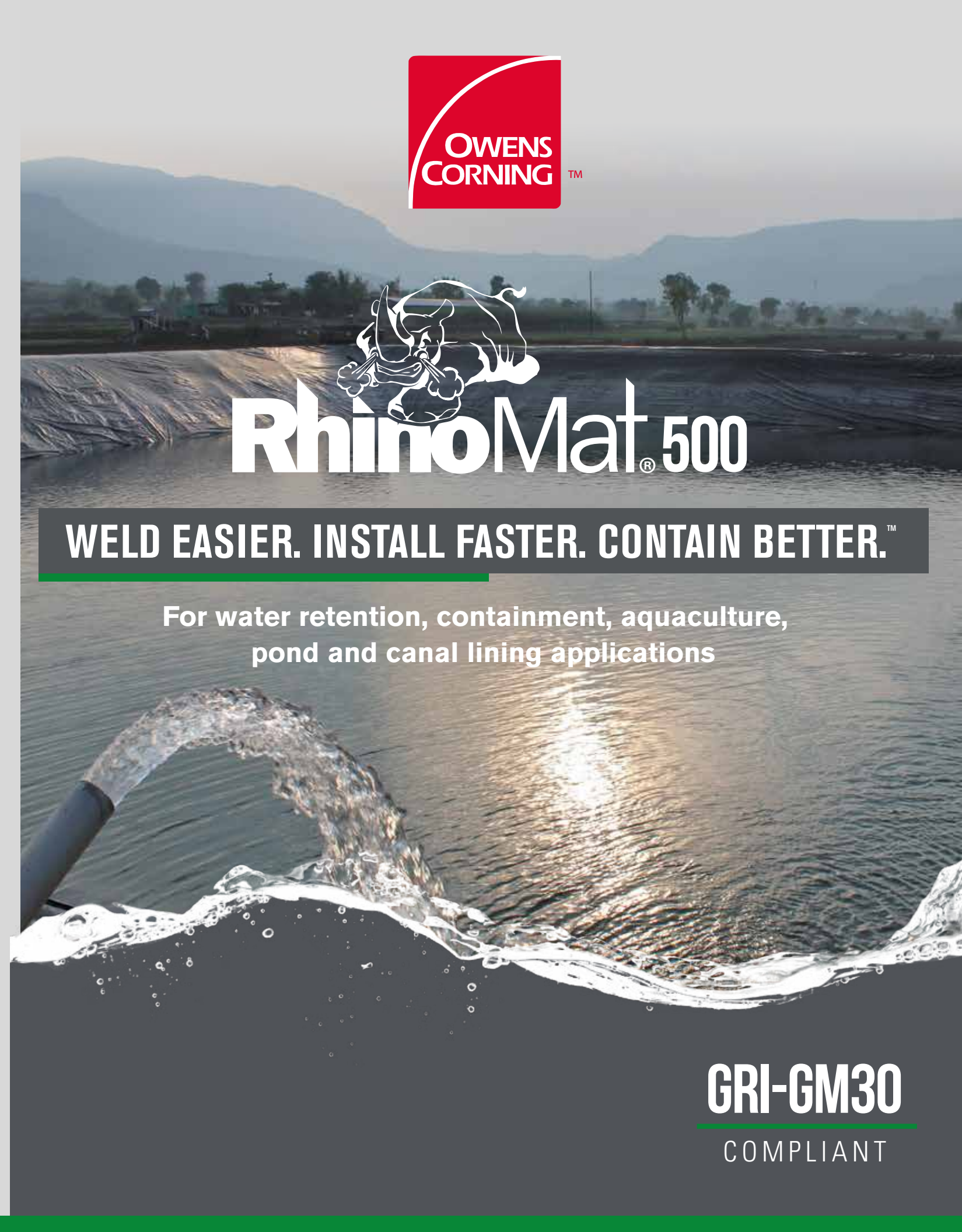
This publication should not be construed as engineering advice. While information contained in this publication is accurate to the best of our knowledge, Owens Corning does not warrant its accuracy or completeness. The user of the products should assume sole responsibility for the final determination of the suitability of the information and the products for the contemplated and actual use. Owens Corning specifically disclaims all warranties, express or implied, including without limitation, warranties of merchantability or fitness for a particular purpose, or arising from provision of samples, a course of dealing or usage of trade.

Contact your RhinoMat® Sales Representative at:

Toll Free: 800.567.9727 | Email: [RhinoMat@OwensCorning.com](mailto:RhinoMat@OwensCorning.com)  
[OwensCorning.com/RhinoMat](http://OwensCorning.com/RhinoMat)

© 2017 Owens Corning. All Rights Reserved.

Pub. No. 10021424-C  
 RM500\_TDS  
 July 2017



# 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

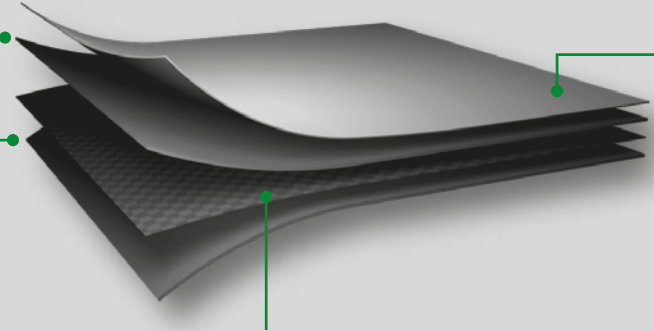
- GRI-GM30 Compliant – RhinoMat is the first portfolio of products to meet this standard
- Non-toxic, no PVC or other hazardous materials used in the construction of the geomembrane
- Impressive UV, ozone and oxidation resistance

### 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

