



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 VALUE¹      |                | MIN AVE. ROLL VALUE² |          |
|------------------------------------------------------------|----------------|---------------------|----------------|----------------------|----------|
|                                                            |                | English             | Metric         | English              | Metric   |
| Weight                                                     | ASTM D5261     | 12.3 oz./yd²        | 415 g/m²       | 12 oz./yd²           | 405 g/m² |
| 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/in²          | 3620 kPa       | 319 lb/in²           | 2199 kPa |
| Dimensional Stability³                                     | ASTM D1204     | 3.00%               |                |                      |          |
| Water Vapor Transmission³                                  | ASTM E96       | 0.14 g/m²·day       |                |                      |          |
| UV Resistance (Fluorescent Light Method)⁴                  | 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)⁵                                     | ASTM D7747     | 80 lbf              | 356 N          |                      |          |
| Seam Strength (Peel)⁶                                      | ASTM D7747     | 20 lbf              | 89 N           |                      |          |
| Hydraulic Conductivity                                     | ASTM E96 (‘B’) | 1.0 x 10⁻¹⁴ cm/sec  |                |                      |          |
| Carbon Black Content                                       | ASTM D4218     | > 2%                |                |                      |          |
| Accelerated UV Weathering⁷                                 | 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         |                      |          |

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

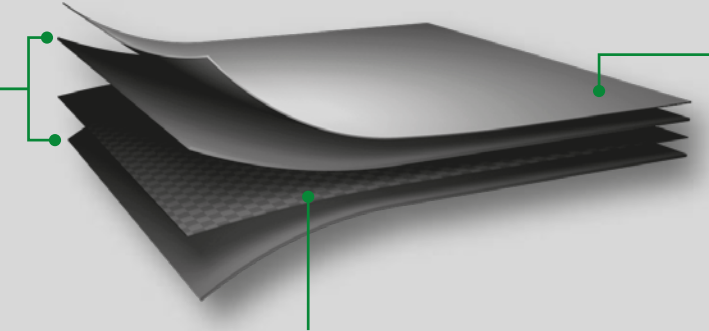
### Provides Warranty Protection

- 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



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

