

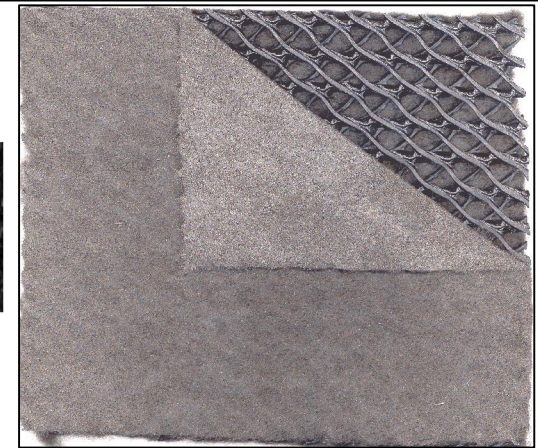
# High Flow Geocomposite

## TENAX TENDRAIN™

### Double-Sided Geocomposite @ 25,000 psf

TENDRAIN™ geocomposite is comprised of a tri-axial geonet structure consisting of thick supporting ribs with diagonally placed top and bottom ribs and with thermally bonded, nonwoven, AASHTO Class 2 geotextiles on both sides. The product is capable of providing high Transmissivity in a soil environment under high normal loads and will have properties conforming to the values and test methods listed below.

Property	Test Methods	Units	Value	Qualifier	Test Frequency
<b>Resin</b>					
• Density	ASTM D 1505	g/cm <sup>3</sup>	0.94	MAV	lot
• Melt Flow Index	ASTM D 1238	g/10min	1.0	MAX	lot
<b>Geonet Core<sup>3</sup></b>					
Structure	Tri-axial				
• Tensile Strength - MD	ASTM D 4595	lb/ft (kN/m)	1200 (17.5)	MAV	50,000 sf
• Creep Reduction Factor <sup>1</sup>	GRI-GC8	-			
• @ 25,000 psf, 20° C			1.2		
• @ 15,000 psf, 40° C			1.2		
• Thickness <sup>2</sup>	ASTM D 5199	mil (mm)	315 (8.0)	MAV	50,000 sf
• Carbon Black	ASTM D 4218	%	2-3	Range	50,000 sf
<b>Geotextile<sup>5</sup></b>					
• U.V. Resistance (500 hrs)	ASTM G 154	%	70	MAV	Per formula
• Serviceability Class	AASHTO M-288		Class 2		
• Grab Tensile	ASTM D 4632	lbs (N)	157 (700)	MARV	100,000 sf
• Tear Strength	ASTM D 4533	lbs (N)	56 (250)	MARV	100,000 sf
• Puncture Resistance	ASTM D 4833	lbs (N)	56 (250)	MARV	100,000 sf
• CBR Puncture Strength	ASTM D 6241	lbs (N)	346 (1540)	MARV	100,000 sf
• AOS	ASTM D 4751	US Std. Sieve (mm)	70 (0.212)	MaxARV	500,000 sf
• Permittivity	ASTM D 4491	Sec <sup>-1</sup>	0.5	MARV	500,000 sf
<b>Geocomposite</b>					
• Peel Adhesion <sup>6</sup> - MD	ASTM D 7005	lb/in (g/in)	1.0 (454)	MAV	100,000 sf
• Labeling	Product code, geotextile type, roll dimensions, finished product lot and roll number.				
<b>Hydraulic Behavior of Geocomposite</b>					
• Transmissivity <sup>7</sup> - MD					
Gradient / Load					
0.1 @ 25,000 psf (1200 kPa)	ASTM D 4716 / GRI - GC8	m <sup>2</sup> /sec	5.0*10 <sup>-4</sup>	MAV	200,000 sf
0.02 @ 25,000 psf (1200 kPa)	ASTM D 4716 / GRI - GC8	m <sup>2</sup> /sec	1.0*10 <sup>-5</sup>	MAV	200,000 sf



Qualifiers:  
 MARV = Minimum Average Roll Value (MARV)  
 MAV = Minimum Average Value  
 MAX = Maximum Value  
 MaxARV = Maximum average roll value

- NOTES:
1. Creep Reduction Factor is based on 10,000 hour test duration, extrapolated to 30 years, under the corresponding compressive load and temperature.
  2. Retained thickness is measured through 5,000 hours duration, under a compressive load of 15,000 psf and temperature of 40°C.
  3. Thickness measured by manufacturer per ASTM D5199 with a 2.22 in. diameter presser foot and 2.9 psi pressure.
  4. Geotextile and geonet properties listed are prior to lamination.
  5. Geotextile meets AASHTO Standard Specification M 288-00 strength requirements of class 1 and the highest filter requirements.
  6. Peel adhesion is tested by the manufacturer per ASTM D 7005. The geotextile bonded to either side of the geonet is pulled apart at a peeling rate of 12 in/min., for at least 4 inches of peeling distance. The 5 samples are cut evenly distributed along the roll width with a 1-foot margin from both edges of the roll.
  7. Geocomposite transmissivity measured by manufacturer per ASTM D4716 with testing boundary conditions as follows: steel plate / Graded Ottawa sand / geocomposite / 60 mil HDPE geomembrane / steel plate, and seating period of 100 hours according to GRI-GC8. Digital indicator of hydraulic gradient is required during the transmissivity measurement at low gradient. For low gradient test, digital indicator of hydraulic gradient is required during the transmissivity measurement.



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## ROOT PROTECTION MATTING



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