

# SYNTEC PRODUCT SPECIFICATION

## SYNTEC, LLC

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### TENDRAIN II 7100-2 Double-Sided Geocomposite

Incorporates a boxed tri-planar geonet consisting of three sets of HDPE strands; vertically formed center ribs superimposed with horizontally formed top and bottom ribs. Open areas between the center ribs manage flow efficiently through continuous length, unobstructed channels. Geotextile intrusion into the channels is limited by the top and bottom ribs which are superimposed to, and lie perpendicular to the center ribs. This boxed tri-planar geonet provides high transmissivity in soil environments. Tendrain II has properties conforming to the values and test methods listed below:

PROPERTY	TEST METHODS	UNITS	VALUE	QUALIFIER	FREQUENCY
<b>TRI-PLANAR GEONET<sup>1</sup></b>					
Thickness	ASTM D 5199	mil (mm)	300 (7.6)	±10 %	100,000 sf
Density	ASTM D 792	g/cm <sup>3</sup>	0.94 – 0.96	Range	100,000 sf
Melt Flow Index	ASTM D 1238	g/10 min	1.0	MAX	100,000 sf
Carbon Black	ASTM D 4218	%	2-3	Range	100,000 sf
Tensile Strength Ratio Transverse / Machine Direction	ASTM D 7179	-	1.0	MAV	100,000 sf
Thickness Retained After 10,000 hour creep test under 15,000psf, and 40°C temperature	GRI-GC8	%	75	-	-
Creep Reduction Factor From 10,000 hour creep test under 15,000psf, and 40°C temperature	GRI-GC8	-	1.2	-	-
<b>GEOTEXTILE<sup>1</sup></b>					
U.V. Resistance (500 hrs)	ASTM D 4355	%	70	MARV	Per formula
Grab Tensile	ASTM D 4632	lbs (N)	203 (902)	MARV	100,000 sf
Grab Elongation	ASTM D 4632	%	50	MARV	100,000 sf
Tear Strength	ASTM D 4533	lbs (N)	80 (356)	MARV	100,000 sf
CBR Puncture	ASTM D 6241	lbs (N)	500 (2,223)	MARV	100,000 sf
AOS	ASTM D 4751	US Std Sieve(mm)	80 (0.18)	MaxARV	500,000 sf
Permittivity	ASTM D 4491	sec <sup>-1</sup>	1.1	MARV	500,000 sf
Water Flow Rate	ASTM D 4491	gpm/ft <sup>2</sup> (l/min/m <sup>2</sup> )	90 (3675)	MARV	500,000 sf
<b>GEOCOMPOSITE</b>					
<b>Bond Strength (Ply Adhesion) - MD</b>					
Peak	ASTM D 7005	lbs/in	1.0	MAV	100,000 sf
Average			0.5		
<b>Transmissivity<sup>2</sup> - MD</b>					
Plate/Ottawa Sand/Geocomposite/ Geomembrane/Plate Gradient = 0.02 @ 15,000 psf 100 hour seating period	ASTM D 4716	m <sup>2</sup> /sec	3.0*10 <sup>-3</sup>	MAV	500,000 sf
<b>DIMENSIONS AND DELIVERY</b>					
The geocomposite shall be delivered to the jobsite in roll form with each identified and nominally measuring 12.5 feet (3.81 meters) in width and 200 feet (61 meters) in length.					

Qualifiers: MARV=Minimum Average Roll Value (MARV), MAV=Minimum Average Value, MAX=Maximum Value, MaxARV=Maximum Average Roll Value, MD=Machine Direction.

NOTES: 1. Geotextile and geonet properties listed are prior to lamination. 2. The Tendrain II geonet has a circular aperture side and a ribbed side. The side with circular apertures should be placed against the soil while the ribbed side should be placed against the geomembrane as indicated with "Top" / "Bottom" labels on the rolls.