

## JOINTDRAIN 7100-2 Double-Sided Geocomposite

JointDrain is a high tensile strength, low compressibility void-maintaining drainage geocomposite. It is comprised of a triplanar geonet structure consisting of thick supporting ribs with diagonally placed top and bottom ribs and with thermally bonded non-woven geotextiles on both sides. JointDrain provides a free-draining layer underneath the joints on Plain Jointed Concrete Pavements (JCP) or Jointed Reinforced Concrete Pavement (JRCP), as well as above JCP or JRCP joints for asphalt overlays to prevent reflective cracking while collecting water migrating from below through the joints. JointDrain provides flow along the direction of the joint like a “flat pipe” as well as stabilization, filtration and separation functions.

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/10 min	1.0	MAX	lot
<b>Geonet Core<sup>1</sup></b>					
• Structure <sup>2</sup>	Tri-axial				
• Geonet Cross-Rib Spacing	Calibered	inch (mm)	0.43 (11.0)	MAX	50,000 sf
• Geonet Main-Rib Spacing	Calibered	inch (mm)	0.47(12.0)	typical	50,000 sf
• Unsupported Aperture Area		inch <sup>2</sup> (mm <sup>2</sup> )	0.3(195)	MAX	50,000 sf
• Thickness	ASTM D 5199	mil (mm)	300 (7.6)	±10 %	50,000 sf
• Carbon Black	ASTM D 4218	%	1.0 - 3.0	Range	50,000 sf
• Creep Reduction Factor <sup>3</sup>	GRI-GC8	-			
@ 25,000 psf, 20° C			1.2		
@ 15,000 psf, 40° C			1.2		
<b>Nonwoven Geotextile<sup>1</sup></b>					
• U.V. Resistance (500 hrs)	ASTM D 4355	%	70		Per formula
• Serviceability Class	AASHTO M-288		Class 1		
• Grab Tensile	ASTM D 4632	lbs (N)	202 (900)	MARV	100,000 sf
• Grab Elongation	ASTM D 4632	%	50	MARV	100,000 sf
• Tear Strength	ASTM D 4533	lbs (N)	79 (350)	MARV	100,000 sf
• Puncture Resistance	ASTM D 4833	lbs (N)	110 (490)	MARV	100,000 sf
• AOS	ASTM D 4751	US Sieve (mm)	80 (0.18)	MaxARV	500,000 sf
• Permittivity	ASTM D 4491	Sec <sup>-1</sup>	1.0	MARV	500,000 sf
<b>Geocomposite</b>					
• Peel Adhesion – MD	ASTM D 7005	lb/in (g/in)	1.0 (454)	MAV	100,000 sf
<b>Hydraulic Properties</b>					
Load of 15,000 psf at gradient of 0.02					
• Transmissivity <sup>4</sup> - MD	ASTM D 4716 GRI - GC8	m <sup>2</sup> /sec (gpm/ft)	3.5 E-3 (16.9)	MAV	200,000 sf
• Coefficient of Permeability <sup>5</sup> - MD	ASTM D 4716 GRI - GC8	m/sec (ft/day)	0.58 (16,510)	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.** Geonet and Geotextile properties listed are prior to lamination. **2.** Tri-axial Geonet structure consists of thick main-ribs with diagonally placed top and bottom-ribs. **3.** Creep reduction factor is based on 10,000 hours test duration and extrapolated to 30 years of design life. **4.** Geocomposite transmissivity is measured per ASTM D4716 with testing boundary conditions as follows: steel plate / geocomposite / Ottawa sand / steel plate, and seating period of 100 hours according to GRI-GC8. Digital gradient indicator of hydraulic gradient is required during the transmissivity measurement. **5.** Coefficient of permeability is calculated with the measured geocomposite transmissivity and the retained geonet core thickness under the corresponding normal load.