

TRANSNET® HDPE GEOCOMPOSITE TN 270-1-200 & TN 270-1-270

Transnet® geocomposite consists of Transet® geonet made from HDPE resin with nonwoven polypropylene geotextile fabric heat bonded on one side of the geonet.

PROPERTY	TEST METHOD	UNITS	VALUE		QUALIFIER
GEONET					
Thickness	ASTM D 5199	mm	6.35		MAV ⁽³⁾
Carbon Black	ASTM D 4218	%	2.0		MAV
Tensile Strength	ASTM D 7179	kN/m	9.62		MAV
Compressive Strength	ASTM D 6364	kPa	1300		MAV
Melt Flow	ASTM D 1238 ⁽²⁾	g/10 min	1.0		Maximum
Density	ASTM D 1505	g/cm ³	0.94		MAV
Transmissivity ⁽¹⁾	ASTM D 4716	m ² /sec	3.0 x 10 ⁻³		MAV
COMPOSITE			200 g/m2	270 g/m2	
Ply Adhesion	ASTM D 7005	g/cm	178	178	MAV
Transmissivity ⁽¹⁾	ASTM D 4716	m ² /sec	1.5 x 10 ⁻³	1.5 x 10 ⁻³	MAV
GEOTEXTILE					
Fabric Weight	ASTM D 5261	g/m ²	200	270	MARV ⁽⁴⁾
Grab Tensile	ASTM D 4632	N	711	1001	MARV
Grab Elongation	ASTM D 4632	%	50	50	MARV
Trapezoid Tear	ASTM D 4533	N	289	400	MARV
CBR Puncture	ASTM D 6241	N	2002	2670	MARV
Water Flow ⁽⁵⁾	ASTM D 4491	l/min/m2	5093	4075	MARV
Permittivity ⁽⁵⁾	ASTM D 4491	sec ⁻¹	1.63	1.26	MARV
Permeability ⁽⁵⁾	ASTM D 4491	cm/sec	0.30	0.30	MARV
AOS	ASTM D 4751	mm	0.212	0.180	MaxARV
UV Resistance	ASTM D 4355	Strength Retained %	70 @500 hours	70 @500 hours	MARV
PRODUCTION DETAILS			Net/Geotextile SS ⁽⁶⁾	Net/Geotextile SS ⁽⁶⁾	
Roll Dimensions	Manufacturer	m	3.81 x 67.06	3.81 x 64.01	
			Net/Geotextile DS ⁽⁶⁾	Net/Geotextile DS ⁽⁶⁾	
Roll Dimensions	Manufacturer	m	3.81 x 60.96	3.81 x 57.91	

Notes:

(1) Transmissivity measured using water at 21 ± 2 °C with a gradient of 0.1 and a confining pressure of 480 kPa between steel plates after 15 minutes. Values may vary with individual labs.

(2) Condition 190/2.16

(3) Minimum average value.

(4) MARV is statistically defined as mean minus two standard deviations and it is the value which is exceeded by 97.5% of all the test data.

(5) At the time of manufacturing. Handling may change these properties.

(6) SS = Net with one side of geotextile DS = Net both sides with geotextile.

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