



May 21, 2014  
IESI / Progressive Waste Solutions  
1099 Miller Drive  
Altamonte Springs, FL, 32701

**Ref. : IESI JED Cell 10, FL**  
**Customer P.O. # JED Cell 10**  
**Product : TN 330-2-8**

We certify that the TN 330-2-8 drainage geocomposite, meets the project requirements as stated in the specifications. The properties listed in this section are:

Property	Test Method	Unit	Required Value	Qualifier
<b>Geonet<sup>4</sup></b>				
Thickness	ASTM D 5199	mil	200	Minimum
Carbon Black	ASTM D 4218	%	2.0 - 3.0	Range
Tensile Strength	ASTM D 5035	lbs/in	75	Minimum
Melt Flow	ASTM D 1238 <sup>3</sup>	g/10 min	1.0	Maximum
Density	ASTM D 1505	g/cm <sup>3</sup>	0.93	Minimum
<b>Composite</b>				
Ply Adhesion	ASTM D 7005	lb/in	1.0	MARV <sup>6</sup>
Transmissivity <sup>1</sup>	ASTM D 4716	m <sup>2</sup> /sec	1.0 x 10 <sup>-3</sup>	MARV
Transmissivity <sup>2</sup>	ASTM D 4716	m <sup>2</sup> /sec	1.5 x 10 <sup>-3</sup>	MARV
<b>Geotextile<sup>4 &amp; 5</sup></b>				
Fabric Weight	ASTM D 5261	oz/yd <sup>2</sup>	8.0	MARV
Grab Strength	ASTM D 4632	lbs	200	MARV
Tear Strength	ASTM D 4533	lbs	75	MARV
CBR Puncture	ASTM D 6241	lbs	500	MARV
Permittivity	ASTM D 4491	sec <sup>-1</sup>	0.50	MARV
AOS	ASTM D 4751	US Sieve	80	MARV
UV Resistance	ASTM D 4355	%/hrs	70/500	MARV

**Notes:**

- <sup>1</sup> Transmissivity measured using water at 21 ± 2 °C (70 ± 4 °F) with a gradient of 0.02 and a confining pressure of 15,000 psf between site soil and 60 mil textured HDPE geomembrane after 100 hours.
- <sup>2</sup> Transmissivity measured using water at 21 ± 2 °C (70 ± 4 °F) with a gradient of 0.02 and a confining pressure of 500 psf between site soil and 60 mil textured HDPE geomembrane after 24 hours.
- <sup>3</sup> Condition 190/2.16
- <sup>4</sup> Geotextile and Geonet properties are prior to lamination.
- <sup>5</sup> Geotextile data is provided by the supplier.
- <sup>6</sup> 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.

Sincerely,

**Nilay Patel**

Nilay Patel  
QA Manager





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We, the Geocomposite Manufacturer, hereby certify the following for the material delivered to the above referenced project :

Roll	Geocomposite Roll Number	Geonet Roll Number	Geotextile Roll Number		Ply Adhesion (lb/in)		Geocomposite Transmissivity (m <sup>2</sup> /sec)
			Side A	Side B	Minimum	Average	
1	57871020001	57871020001 - N	5787.266	5787.201	1.39	2.18	
2	57871020002	57871020002 - N	5787.266	5787.201			
3	57871020003	57871020003 - N	5787.266	5787.201			
4	57871020004	57871020004 - N	5787.266	5787.201			
5	57871020005	57871020005 - N	5787.266	5787.201			
6	57871020006	57871020006 - N	5787.266	5787.201			
7	57871020007	57871020007 - N	5787.257	5787.203			
8	57871020008	57871020008 - N	5787.257	5787.203			
9	57871020009	57871020009 - N	5787.257	5787.203			
10	57871020010	57871020010 - N	5787.257	5787.203			
11	57871020011	57871020011 - N	5787.257	5787.203			
12	57871020012	57871020012 - N	5787.257	5787.203			
13	57871020013	57871020013 - N	5787.216	5787.232			
14	57871020014	57871020014 - N	5787.216	5787.232			
15	57871020015	57871020015 - N	5787.216	5787.232	1.69	3.41	
16	57871020016	57871020016 - N	5787.216	5787.232			
17	57871020017	57871020017 - N	5787.216	5787.232			
18	57871020018	57871020018 - N	5787.216	5787.232			
19	57871020019	57871020019 - N	5787.208	5787.248			
20	57871020020	57871020020 - N	5787.208	5787.248			
21	57871020021	57871020021 - N	5787.208	5787.248			
22	57871020022	57871020022 - N	5787.208	5787.248			
23	57871020023	57871020023 - N	5787.208	5787.248			
24	57871020024	57871020024 - N	5787.208	5787.248			
25	57871020025	57871020025 - N	5787.207	5787.227			
26	57871020026	57871020026 - N	5787.207	5787.227			
27	57871020027	57871020027 - N	5787.207	5787.227			



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Geonet Roll Number	Resin Lot Number	Geonet Density (gm/cc)	Thickness (mils)	Carbon Black (%)	Tensile Strength (MD) (lb/in)	Transmissivity (m <sup>2</sup> /sec)
57871020001 - N	XOMX 710179	0.9513	314	2.55	110	
57871020002 - N	XOMX 710179	0.9513				
57871020003 - N	XOMX 710179	0.9513				
57871020004 - N	XOMX 710179	0.9513				
57871020005 - N	XOMX 710179	0.9513				
57871020006 - N	XOMX 710179	0.9513				
57871020007 - N	XOMX 710179	0.9513				
57871020008 - N	XOMX 710179	0.9513				
57871020009 - N	XOMX 710179	0.9513				
57871020010 - N	XOMX 710179	0.9513				
57871020011 - N	XOMX 710179	0.9513				
57871020012 - N	XOMX 710179	0.9513				
57871020013 - N	XOMX 710179	0.9513				
57871020014 - N	XOMX 710179	0.9513				
57871020015 - N	XOMX 710179	0.9519	326	2.32	114	
57871020016 - N	XOMX 710179	0.9519				
57871020017 - N	XOMX 710179	0.9519				
57871020018 - N	XOMX 710179	0.9519				
57871020019 - N	XOMX 710179	0.9519				
57871020020 - N	XOMX 710179	0.9519				
57871020021 - N	XOMX 710179	0.9519				
57871020022 - N	XOMX 710179	0.9519				
57871020023 - N	XOMX 710179	0.9519				
57871020024 - N	XOMX 710179	0.9519				
57871020025 - N	XOMX 710179	0.9519				
57871020026 - N	XOMX 710179	0.9519				
57871020027 - N	XOMX 710179	0.9519				



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Roll	Geocomposite Roll Number	Geonet Roll Number	Geotextile Roll Number		Ply Adhesion (lb/in)		Geocomposite Transmissivity (m <sup>2</sup> /sec)
			Side A	Side B	Minimum	Average	
28	57871020028	57871020028 - N	5787.207	5787.227			
29	57871020029	57871020029 - N	5787.207	5787.227			
30	57871020030	57871020030 - N	5787.207	5787.227	1.54	2.69	
31	57871020031	57871020031 - N	5787.256	5787.259			
32	57871020032	57871020032 - N	5787.256	5787.259			
33	57871020033	57871020033 - N	5787.256	5787.259			
34	57871020034	57871020034 - N	5787.256	5787.259			
35	57871020035	57871020035 - N	5787.256	5787.259			
36	57871020036	57871020036 - N	5787.256	5787.259			
37	57871020037	57871020037 - N	5787.254	5787.234			
38	57871020038	57871020038 - N	5787.254	5787.234			
39	57871020039	57871020039 - N	5787.254	5787.234			
40	57871020040	57871020040 - N	5787.254	5787.234			
41	57871020041	57871020041 - N	5787.254	5787.234			
42	57871020042	57871020042 - N	5787.254	5787.234			
43	57871020043	57871020043 - N	5787.217	5787.246			
44	57871020044	57871020044 - N	5787.217	5787.246			
45	57871020045	57871020045 - N	5787.217	5787.246	1.58	2.24	
46	57871020046	57871020046 - N	5787.217	5787.246			
47	57871020047	57871020047 - N	5787.217	5787.246			
48	57871020048	57871020048 - N	5787.217	5787.246			
49	57871020049	57871020049 - N	5787.237	5787.260			
50	57871020050	57871020050 - N	5787.237	5787.260			
51	57871020051	57871020051 - N	5787.237	5787.260			
52	57871020052	57871020052 - N	5787.237	5787.260			
53	57871020053	57871020053 - N	5787.237	5787.260			
54	57871020054	57871020054 - N	5787.237	5787.260			



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Geonet Roll Number	Resin Lot Number	Geonet Density (gm/cc)	Thickness (mils)	Carbon Black (%)	Tensile Strength (MD) (lb/in)	Transmissivity (m <sup>2</sup> /sec)
57871020028 - N	XOMX 710179	0.9519				
57871020029 - N	XOMX 710179	0.9519				
57871020030 - N	XOMX 710179	0.9514	321	2.26	107	
57871020031 - N	XOMX 710179	0.9514				
57871020032 - N	XOMX 710179	0.9514				
57871020033 - N	XOMX 710179	0.9514				
57871020034 - N	XOMX 710179	0.9514				
57871020035 - N	XOMX 710179	0.9514				
57871020036 - N	XOMX 710179	0.9514				
57871020037 - N	XOMX 710179	0.9514				
57871020038 - N	XOMX 710179	0.9514				
57871020039 - N	XOMX 710179	0.9514				
57871020040 - N	XOMX 710179	0.9514				
57871020041 - N	XOMX 710179	0.9514				
57871020042 - N	XOMX 710179	0.9514				
57871020043 - N	XOMX 710179	0.9514				
57871020044 - N	XOMX 710179	0.9514				
57871020045 - N	XOMX 710179	0.9517	315	2.24	111	
57871020046 - N	XOMX 710179	0.9517				
57871020047 - N	XOMX 710179	0.9517				
57871020048 - N	XOMX 710179	0.9517				
57871020049 - N	XOMX 710179	0.9517				
57871020050 - N	XOMX 710179	0.9517				
57871020051 - N	XOMX 710179	0.9517				
57871020052 - N	XOMX 710179	0.9517				
57871020053 - N	XOMX 710179	0.9517				
57871020054 - N	XOMX 710179	0.9517				



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			Side A	Side B	Minimum	Average	
55	57871020055	57871020055 - N	5787.247	5787.261			
56	57871020056	57871020056 - N	5787.247	5787.261			
57	57871020057	57871020057 - N	5787.247	5787.261			
58	57871020058	57871020058 - N	5787.247	5787.261			
59	57871020059	57871020059 - N	5787.247	5787.261			
60	57871020060	57871020060 - N	5787.247	5787.261	1.51	2.97	
61	57871020061	57871020061 - N	5787.222	5787.244			
62	57871020062	57871020062 - N	5787.222	5787.244			
63	57871020063	57871020063 - N	5787.222	5787.244			
64	57871020064	57871020064 - N	5787.222	5787.244			
65	57871020065	57871020065 - N	5787.222	5787.244			
66	57871020066	57871020066 - N	5787.222	5787.244			
67	57871020067	57871020067 - N	5787.258	5787.250			
68	57871020068	57871020068 - N	5787.258	5787.250			
69	57871020069	57871020069 - N	5787.258	5787.250			
70	57871020070	57871020070 - N	5787.258	5787.250			
71	57871020071	57871020071 - N	5787.258	5787.250			
72	57871020072	57871020072 - N	5787.258	5787.250			
73	57871020073	57871020073 - N	5787.253	5787.226			
74	57871020074	57871020074 - N	5787.253	5787.226			
75	57871020075	57871020075 - N	5787.253	5787.226	1.46	3.21	
76	57871020076	57871020076 - N	5787.253	5787.226			
77	57871020077	57871020077 - N	5787.253	5787.226			
78	57871020078	57871020078 - N	5787.253	5787.226			
79	57871020079	57871020079 - N	5787.262	5787.240			
80	57871020080	57871020080 - N	5787.262	5787.240			
81	57871020081	57871020081 - N	5787.262	5787.240			



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57871020055 - N	XOMX 710179	0.9517				
57871020056 - N	XOMX 710179	0.9517				
57871020057 - N	XOMX 710179	0.9517				
57871020058 - N	XOMX 710179	0.9517				
57871020059 - N	XOMX 710179	0.9517				
57871020060 - N	XOMX 710179	0.9521	327	2.40	109	
57871020061 - N	XOMX 710179	0.9521				
57871020062 - N	XOMX 710179	0.9521				
57871020063 - N	XOMX 710179	0.9521				
57871020064 - N	XOMX 710179	0.9521				
57871020065 - N	XOMX 710179	0.9521				
57871020066 - N	XOMX 710179	0.9521				
57871020067 - N	XOMX 710179	0.9521				
57871020068 - N	XOMX 710179	0.9521				
57871020069 - N	XOMX 710179	0.9521				
57871020070 - N	XOMX 710179	0.9521				
57871020071 - N	XOMX 710179	0.9521				
57871020072 - N	XOMX 710179	0.9521				
57871020073 - N	XOMX 710179	0.9521				
57871020074 - N	XOMX 710179	0.9521				
57871020075 - N	XOMX 710179	0.9516	316	2.42	112	
57871020076 - N	XOMX 710179	0.9516				
57871020077 - N	XOMX 710179	0.9516				
57871020078 - N	XOMX 710179	0.9516				
57871020079 - N	XOMX 710179	0.9516				
57871020080 - N	XOMX 710179	0.9516				
57871020081 - N	XOMX 710179	0.9516				



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			Side A	Side B	Minimum	Average	
82	57871020082	57871020082 - N	5787.262	5787.240			
83	57871020083	57871020083 - N	5787.262	5787.240			
84	57871020084	57871020084 - N	5787.262	5787.240			
85	57871020085	57871020085 - N	5787.268	5787.219			
86	57871020086	57871020086 - N	5787.268	5787.219			
87	57871020087	57871020087 - N	5787.268	5787.219			
88	57871020088	57871020088 - N	5787.268	5787.219			
89	57871020089	57871020089 - N	5787.268	5787.219			
90	57871020090	57871020090 - N	5787.268	5787.219	1.47	2.91	
91	57871020091	57871020091 - N	5787.236	5787.229			
92	57871020092	57871020092 - N	5787.236	5787.229			
93	57871020093	57871020093 - N	5787.236	5787.229			
94	57871020094	57871020094 - N	5787.236	5787.229			
95	57871020095	57871020095 - N	5787.236	5787.229			
96	57871020096	57871020096 - N	5787.236	5787.229			
97	57871020097	57871020097 - N	5787.233	5787.255			
98	57871020098	57871020098 - N	5787.233	5787.255			
99	57871020099	57871020099 - N	5787.233	5787.255			
100	57871020100	57871020100 - N	5787.233	5787.255			
101	57871020101	57871020101 - N	5787.233	5787.255			
102	57871020102	57871020102 - N	5787.233	5787.255			
103	57871020103	57871020103 - N	5787.249	5787.218			
104	57871020104	57871020104 - N	5787.249	5787.218			
105	57871020105	57871020105 - N	5787.249	5787.218	1.56	3.38	
106	57871020106	57871020106 - N	5787.249	5787.218			
107	57871020107	57871020107 - N	5787.249	5787.218			
108	57871020108	57871020108 - N	5787.249	5787.218			





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57871020082 - N	XOMX 710179	0.9516				
57871020083 - N	XOMX 710179	0.9516				
57871020084 - N	XOMX 710179	0.9516				
57871020085 - N	XOMX 710179	0.9516				
57871020086 - N	XOMX 710179	0.9516				
57871020087 - N	XOMX 710179	0.9516				
57871020088 - N	XOMX 710179	0.9516				
57871020089 - N	XOMX 710179	0.9516				
57871020090 - N	XOMX 710179	0.9512	322	2.47	115	
57871020091 - N	XOMX 710179	0.9512				
57871020092 - N	XOMX 710179	0.9512				
57871020093 - N	XOMX 710179	0.9512				
57871020094 - N	XOMX 710179	0.9512				
57871020095 - N	XOMX 710179	0.9512				
57871020096 - N	XOMX 710179	0.9512				
57871020097 - N	XOMX 710179	0.9512				
57871020098 - N	XOMX 710179	0.9512				
57871020099 - N	XOMX 710179	0.9512				
57871020100 - N	XOMX 710179	0.9512				
57871020101 - N	XOMX 710179	0.9512				
57871020102 - N	XOMX 710179	0.9512				
57871020103 - N	XOMX 710179	0.9512				
57871020104 - N	XOMX 710179	0.9512				
57871020105 - N	XOMX 710179	0.9515	313	2.63	108	
57871020106 - N	XOMX 710179	0.9515				
57871020107 - N	XOMX 710179	0.9515				
57871020108 - N	XOMX 710179	0.9515				



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			Side A	Side B	Minimum	Average	
109	57871020109	57871020109 - N	5787.209	5787.265			
110	57871020110	57871020110 - N	5787.209	5787.265			
111	57871020111	57871020111 - N	5787.209	5787.265			
112	57871020112	57871020112 - N	5787.209	5787.265			
113	57871020113	57871020113 - N	5787.209	5787.265			
114	57871020114	57871020114 - N	5787.209	5787.265			
115	57871020115	57871020115 - N	5787.251	5787.239			
116	57871020116	57871020116 - N	5787.251	5787.239			
117	57871020117	57871020117 - N	5787.251	5787.239			
118	57871020118	57871020118 - N	5787.251	5787.239			
119	57871020119	57871020119 - N	5787.251	5787.239			
120	57871020120	57871020120 - N	5787.251	5787.239	1.77	2.27	
121	57871020121	57871020121 - N	5787.204	5787.238			
122	57871020122	57871020122 - N	5787.204	5787.238			
123	57871020123	57871020123 - N	5787.204	5787.238			
124	57871020124	57871020124 - N	5787.204	5787.238			
125	57871020125	57871020125 - N	5787.204	5787.238			
126	57871020126	57871020126 - N	5787.204	5787.238			
127	57871020127	57871020127 - N	5787.205	5787.269			
128	57871020128	57871020128 - N	5787.205	5787.269			
129	57871020129	57871020129 - N	5787.205	5787.269			
130	57871020130	57871020130 - N	5787.205	5787.269			
131	57871020131	57871020131 - N	5787.205	5787.269			
132	57871020132	57871020132 - N	5787.205	5787.269			
133	57871020133	57871020133 - N	5787.221	5787.215			
134	57871020134	57871020134 - N	5787.221	5787.215			
135	57871020135	57871020135 - N	5787.221	5787.215	1.44	3.03	



**Product :** TN 330-2-8  
**Project :** IESI JED Cell 10, FL

We, the Geonet Manufacturer, hereby certify the following for the material sent to the above referenced project :

Geonet Roll Number	Resin Lot Number	Geonet Density (gm/cc)	Thickness (mils)	Carbon Black (%)	Tensile Strength (MD) (lb/in)	Transmissivity (m <sup>2</sup> /sec)
57871020109 - N	XOMX 710179	0.9515				
57871020110 - N	XOMX 710179	0.9515				
57871020111 - N	XOMX 710179	0.9515				
57871020112 - N	XOMX 710179	0.9515				
57871020113 - N	XOMX 710179	0.9515				
57871020114 - N	XOMX 710179	0.9515				
57871020115 - N	XOMX 710179	0.9515				
57871020116 - N	XOMX 710179	0.9515				
57871020117 - N	XOMX 710179	0.9515				
57871020118 - N	XOMX 710179	0.9515				
57871020119 - N	XOMX 710179	0.9515				
57871020120 - N	XOMX 710179	0.9518	319	2.31	113	
57871020121 - N	XOMX 710179	0.9518				
57871020122 - N	XOMX 710179	0.9518				
57871020123 - N	XOMX 710179	0.9518				
57871020124 - N	XOMX 710179	0.9518				
57871020125 - N	XOMX 710179	0.9518				
57871020126 - N	XOMX 710179	0.9518				
57871020127 - N	XOMX 710179	0.9518				
57871020128 - N	XOMX 710179	0.9518				
57871020129 - N	XOMX 710179	0.9518				
57871020130 - N	XOMX 710179	0.9518				
57871020131 - N	XOMX 710179	0.9518				
57871020132 - N	XOMX 710179	0.9518				
57871020133 - N	XOMX 710179	0.9518				
57871020134 - N	XOMX 710179	0.9518				
57871020135 - N	XOMX 710179	0.9520	323	2.67	109	



**Product :** TN 330-2-8

**Project :** IESI JED Cell 10, FL

We, the Geocomposite Manufacturer, hereby certify the following for the material delivered to the above referenced project :

Roll	Geocomposite Roll Number	Geonet Roll Number	Geotextile Roll Number		Ply Adhesion (lb/in)		Geocomposite Transmissivity (m <sup>2</sup> /sec)
			Side A	Side B	Minimum	Average	
136	57871020136	57871020136 - N	5787.221	5787.215			
137	57871020137	57871020137 - N	5787.221	5787.215			
138	57871020138	57871020138 - N	5787.221	5787.215			
139	57871020139	57871020139 - N	5787.228	5787.214			
140	57871020140	57871020140 - N	5787.228	5787.214			
141	57871020141	57871020141 - N	5787.228	5787.214			
142	57871020142	57871020142 - N	5787.228	5787.214			
143	57871020143	57871020143 - N	5787.228	5787.214			
144	57871020144	57871020144 - N	5787.228	5787.214			
145	57871020145	57871020145 - N	5787.220	5787.206			
146	57871020146	57871020146 - N	5787.220	5787.206			
147	57871020147	57871020147 - N	5787.220	5787.206			
148	57871020148	57871020148 - N	5787.220	5787.206			
149	57871020149	57871020149 - N	5787.220	5787.206			
150	57871020150	57871020150 - N	5787.220	5787.206	1.68	3.26	
151	57871020151	57871020151 - N	5787.235	5787.272			
152	57871020152	57871020152 - N	5787.235	5787.272			
153	57871020153	57871020153 - N	5787.235	5787.272			
154	57871020154	57871020154 - N	5787.235	5787.272			
155	57871020155	57871020155 - N	5787.235	5787.272			
156	57871020156	57871020156 - N	5787.235	5787.272			
157	57871020157	57871020157 - N	5787.242	5787.225			
158	57871020158	57871020158 - N	5787.242	5787.225			
159	57871020159	57871020159 - N	5787.242	5787.225			
160	57871020160	57871020160 - N	5787.242	5787.225			
161	57871020161	57871020161 - N	5787.242	5787.225			
162	57871020162	57871020162 - N	5787.242	5787.225			



**Product :** TN 330-2-8  
**Project :** IESI JED Cell 10, FL

We, the Geonet Manufacturer, hereby certify the following for the material sent to the above referenced project :

Geonet Roll Number	Resin Lot Number	Geonet Density (gm/cc)	Thickness (mils)	Carbon Black (%)	Tensile Strength (MD) (lb/in)	Transmissivity (m <sup>2</sup> /sec)
57871020136 - N	XOMX 710179	0.9520				
57871020137 - N	XOMX 710179	0.9520				
57871020138 - N	XOMX 710179	0.9520				
57871020139 - N	XOMX 710179	0.9520				
57871020140 - N	XOMX 710179	0.9520				
57871020141 - N	XOMX 710179	0.9520				
57871020142 - N	XOMX 710179	0.9520				
57871020143 - N	XOMX 710179	0.9520				
57871020144 - N	XOMX 710179	0.9520				
57871020145 - N	XOMX 710179	0.9520				
57871020146 - N	XOMX 710179	0.9520				
57871020147 - N	XOMX 710179	0.9520				
57871020148 - N	XOMX 710179	0.9520				
57871020149 - N	XOMX 710179	0.9520				
57871020150 - N	XOMX 710179	0.9513	320	2.36	115	
57871020151 - N	XOMX 710179	0.9513				
57871020152 - N	XOMX 710179	0.9513				
57871020153 - N	XOMX 710179	0.9513				
57871020154 - N	XOMX 710179	0.9513				
57871020155 - N	XOMX 710179	0.9513				
57871020156 - N	XOMX 710179	0.9513				
57871020157 - N	XOMX 710179	0.9513				
57871020158 - N	XOMX 710179	0.9513				
57871020159 - N	XOMX 710179	0.9513				
57871020160 - N	XOMX 710179	0.9513				
57871020161 - N	XOMX 710179	0.9513				
57871020162 - N	XOMX 710179	0.9513				



**Product :** TN 330-2-8

**Project :** IESI JED Cell 10, FL

We, the Geocomposite Manufacturer, hereby certify the following for the material delivered to the above referenced project :

Roll	Geocomposite Roll Number	Geonet Roll Number	Geotextile Roll Number		Ply Adhesion (lb/in)		Geocomposite Transmissivity (m <sup>2</sup> /sec)
			Side A	Side B	Minimum	Average	
163	57871020163	57871020163 - N	5787.223	5787.211			
164	57871020164	57871020164 - N	5787.223	5787.211			
165	57871020165	57871020165 - N	5787.223	5787.211	1.49	2.23	
166	57871020166	57871020166 - N	5787.223	5787.211			
167	57871020167	57871020167 - N	5787.223	5787.211			
168	57871020168	57871020168 - N	5787.223	5787.211			
169	57871020169	57871020169 - N	5787.267	5787.264			
170	57871020170	57871020170 - N	5787.267	5787.264			
171	57871020171	57871020171 - N	5787.267	5787.264			
172	57871020172	57871020172 - N	5787.267	5787.264			
173	57871020173	57871020173 - N	5787.267	5787.264			
174	57871020174	57871020174 - N	5787.267	5787.264			
175	57871020175	57871020175 - N	5787.210	5787.245			
176	57871020176	57871020176 - N	5787.210	5787.245			
177	57871020177	57871020177 - N	5787.210	5787.245			
178	57871020178	57871020178 - N	5787.210	5787.245			
179	57871020179	57871020179 - N	5787.210	5787.245			
180	57871020180	57871020180 - N	5787.210	5787.245	1.72	2.26	
181	57871020181	57871020181 - N	5787.270	5787.252			
182	57871020182	57871020182 - N	5787.270	5787.252			
183	57871020183	57871020183 - N	5787.270	5787.252			
184	57871020184	57871020184 - N	5787.270	5787.252			
185	57871020185	57871020185 - N	5787.270	5787.252			
186	57871020186	57871020186 - N	5787.270	5787.252			
187	57871020187	57871020187 - N	5787.212	5787.243			
188	57871020188	57871020188 - N	5787.212	5787.243			
189	57871020189	57871020189 - N	5787.212	5787.243			



**Product :** TN 330-2-8  
**Project :** IESI JED Cell 10, FL

We, the Geonet Manufacturer, hereby certify the following for the material sent to the above referenced project :

Geonet Roll Number	Resin Lot Number	Geonet Density (gm/cc)	Thickness (mils)	Carbon Black (%)	Tensile Strength (MD) (lb/in)	Transmissivity (m <sup>2</sup> /sec)
57871020163 - N	XOMX 710179	0.9513				
57871020164 - N	XOMX 710179	0.9513				
57871020165 - N	XOMX 710179	0.9522	317	2.69	107	
57871020166 - N	XOMX 710179	0.9522				
57871020167 - N	XOMX 710179	0.9522				
57871020168 - N	XOMX 710179	0.9522				
57871020169 - N	XOMX 710179	0.9522				
57871020170 - N	XOMX 710179	0.9522				
57871020171 - N	XOMX 710179	0.9522				
57871020172 - N	XOMX 710179	0.9522				
57871020173 - N	XOMX 710179	0.9522				
57871020174 - N	XOMX 710179	0.9522				
57871020175 - N	XOMX 710179	0.9522				
57871020176 - N	XOMX 710179	0.9522				
57871020177 - N	XOMX 710179	0.9522				
57871020178 - N	XOMX 710179	0.9522				
57871020179 - N	XOMX 710179	0.9522				
57871020180 - N	XOMX 710179	0.9518	325	2.30	114	
57871020181 - N	XOMX 710179	0.9518				
57871020182 - N	XOMX 710179	0.9518				
57871020183 - N	XOMX 710179	0.9518				
57871020184 - N	XOMX 710179	0.9518				
57871020185 - N	XOMX 710179	0.9518				
57871020186 - N	XOMX 710179	0.9518				
57871020187 - N	XOMX 710179	0.9518				
57871020188 - N	XOMX 710179	0.9518				
57871020189 - N	XOMX 710179	0.9518				



**Product :** TN 330-2-8

**Project :** IESI JED Cell 10, FL

We, the Geocomposite Manufacturer, hereby certify the following for the material delivered to the above referenced project :

Roll	Geocomposite Roll Number	Geonet Roll Number	Geotextile Roll Number		Ply Adhesion (lb/in)		Geocomposite Transmissivity (m <sup>2</sup> /sec)
			Side A	Side B	Minimum	Average	
190	57871020190	57871020190 - N	5787.212	5787.243			
191	57871020191	57871020191 - N	5787.212	5787.243			
192	57871020192	57871020192 - N	5787.212	5787.243			
193	57871020193	57871020193 - N	5787.202	5787.230			
194	57871020194	57871020194 - N	5787.202	5787.230			
195	57871020195	57871020195 - N	5787.202	5787.230	1.41	3.07	
196	57871020196	57871020196 - N	5787.202	5787.230			
197	57871020197	57871020197 - N	5787.202	5787.230			
198	57871020198	57871020198 - N	5787.202	5787.230			
199	57871020199	57871020199 - N	5787.231	5787.271			
200	57871020200	57871020200 - N	5787.231	5787.271			
201	57871020201	57871020201 - N	5787.231	5787.271			
202	57871020202	57871020202 - N	5787.231	5787.271			
203	57871020203	57871020203 - N	5787.231	5787.271			
204	57871020204	57871020204 - N	5787.231	5787.271			
205	57871020205	57871020205 - N	5787.213	5787.263			
206	57871020206	57871020206 - N	5787.213	5787.263			
207	57871020207	57871020207 - N	5787.213	5787.263			
208	57871020208	57871020208 - N	5787.213	5787.263			
209	57871020209	57871020209 - N	5787.213	5787.263			
210	57871020210	57871020210 - N	5787.213	5787.263	1.70	3.30	
211	57871020211	57871020211 - N	5787.241	5787.224			
212	57871020212	57871020212 - N	5787.241	5787.224			
213	57871020213	57871020213 - N	5787.241	5787.224			
214	57871020214	57871020214 - N	5787.241	5787.224			
215	57871020215	57871020215 - N	5787.241	5787.224			
216	57871020216	57871020216 - N	5787.241	5787.224			





**Product :** TN 330-2-8  
**Project :** IESI JED Cell 10, FL

We, the Geonet Manufacturer, hereby certify the following for the material sent to the above referenced project :

Geonet Roll Number	Resin Lot Number	Geonet Density (gm/cc)	Thickness (mils)	Carbon Black (%)	Tensile Strength (MD) (lb/in)	Transmissivity (m <sup>2</sup> /sec)
57871020190 - N	XOMX 710179	0.9518				
57871020191 - N	XOMX 710179	0.9518				
57871020192 - N	XOMX 710179	0.9518				
57871020193 - N	XOMX 710179	0.9518				
57871020194 - N	XOMX 710179	0.9518				
57871020195 - N	XOMX 710179	0.9515	318	2.49	112	
57871020196 - N	XOMX 710179	0.9515				
57871020197 - N	XOMX 710179	0.9515				
57871020198 - N	XOMX 710179	0.9515				
57871020199 - N	XOMX 710179	0.9515				
57871020200 - N	XOMX 710179	0.9515				
57871020201 - N	XOMX 710179	0.9515				
57871020202 - N	XOMX 710179	0.9515				
57871020203 - N	XOMX 710179	0.9515				
57871020204 - N	XOMX 710179	0.9515				
57871020205 - N	XOMX 710179	0.9515				
57871020206 - N	XOMX 710179	0.9515				
57871020207 - N	XOMX 710179	0.9515				
57871020208 - N	XOMX 710179	0.9515				
57871020209 - N	XOMX 710179	0.9515				
57871020210 - N	XOMX 710179	0.9512	324	2.56	113	
57871020211 - N	XOMX 710179	0.9512				
57871020212 - N	XOMX 710179	0.9512				
57871020213 - N	XOMX 710179	0.9512				
57871020214 - N	XOMX 710179	0.9512				
57871020215 - N	XOMX 710179	0.9512				
57871020216 - N	XOMX 710179	0.9512				



Product : TN 330-2-8  
Project : IESI JED Cell 10, FL

We, the Geocomposite Manufacturer, hereby certify the following for the material delivered to the above referenced project :

Roll	Geocomposite Roll Number	Geonet Roll Number	Geotextile Roll Number		Ply Adhesion (lb/in)		Geocomposite Transmissivity (m <sup>2</sup> /sec)
			Side A	Side B	Minimum	Average	
217	57871020217	57871020217 - N	5787.274	5787.275			
218	57871020218	57871020218 - N	5787.274	5787.275			
219	57871020219	57871020219 - N	5787.274	5787.275			
220	57871020220	57871020220 - N	5787.274	5787.275			
221	57871020221	57871020221 - N	5787.274	5787.275			
222	57871020222	57871020222 - N	5787.274	5787.275			
223	57871020223	57871020223 - N	5787.276	5787.273			
224	57871020224	57871020224 - N	5787.276	5787.273			
225	57871020225	57871020225 - N	5787.276	5787.273	1.62	2.34	
226	57871020226	57871020226 - N	5787.276	5787.273			



**Product :** TN 330-2-8  
**Project :** IESI JED Cell 10, FL

We, the Geonet Manufacturer, hereby certify the following for the material sent to the above referenced project :

Geonet Roll Number	Resin Lot Number	Geonet Density (gm/cc)	Thickness (mils)	Carbon Black (%)	Tensile Strength (MD) (lb/in)	Transmissivity (m <sup>2</sup> /sec)
57871020217 - N	XOMX 710179	0.9512				
57871020218 - N	XOMX 710179	0.9512				
57871020219 - N	XOMX 710179	0.9512				
57871020220 - N	XOMX 710179	0.9512				
57871020221 - N	XOMX 710179	0.9512				
57871020222 - N	XOMX 710179	0.9512				
57871020223 - N	XOMX 710179	0.9512				
57871020224 - N	XOMX 710179	0.9512				
57871020225 - N	XOMX 710179	0.9517	326	2.68	111	
57871020226 - N	XOMX 710179	0.9517				

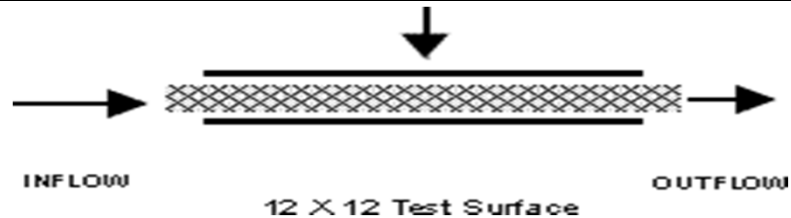


# ASTM D 4716

**Client:** IESI / Progressive Waste Solutions  
**Project:** IESI JED Cell 10, FL  
**Product:** TN 330-2-8

**Job #** 5787

## Test Configuration:



## Test Information:

**Boundary Conditions:** Site Soil  
Geocomposite  
60 mil Textured HDPE Geomembrane

**Normal Load:** 15000  
**Gradient:** 0.02  
**Seating Time:** 100 hours  
**Flow Direction:** MD

## Test Results:

Roll No.	Pressure, psf	Gradient	Transmissivity, m <sup>2</sup> /sec
			100 hours
57871020001	15000	0.02	$1.3 \times 10^{-3}$
57871020040			$1.37 \times 10^{-3}$
57871020080			$1.25 \times 10^{-3}$
57871020120			$1.23 \times 10^{-3}$
57871020160			$1.44 \times 10^{-3}$
57871020200			$1.4 \times 10^{-3}$

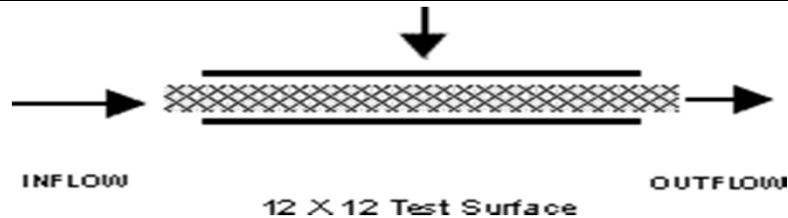


# ASTM D 4716

**Client:** IESI / Progressive Waste Solutions  
**Project:** IESI JED Cell 10, FL  
**Product:** TN 330-2-8

**Job #** 5787

## Test Configuration:



## Test Information:

**Boundary Conditions:** Site Soil  
Geocomposite  
60 mil Textured HDPE Geomembrane

**Normal Load:** 500  
**Gradient:** 0.02  
**Seating Time:** 24 hours  
**Flow Direction:** MD

## Test Results:

Roll No.	Pressure, psf	Gradient	Transmissivity, m <sup>2</sup> /sec
			24 hours
57871020001	500	0.02	2.29 x 10 <sup>-3</sup>
57871020040			2.23 x 10 <sup>-3</sup>
57871020080			2.39 x 10 <sup>-3</sup>
57871020120			2.17 x 10 <sup>-3</sup>
57871020160			2.2 x 10 <sup>-3</sup>
57871020200			2.4 x 10 <sup>-3</sup>



## POLYETHYLENE RESIN CERTIFICATION

**Customer Name :** IESI / Progressive Waste Solutions  
**Project Name :** IESI JED Cell 10, FL  
**Geocomposite Manufacturer :** SKAPS Industries  
**Geocomposite Production Plant :** Commerce, GA  
**Geocomposite Brand Name :** TN 330-2-8

We, the Geonet Manufacturer, hereby certify the following for the material delivered to the above referenced project:

Resin Supplier	Resin Production Plant	Resin Brand Name	Resin Lot Number	Property	Test Method	Units	Resin Supplier Value	Tested Value*
Osterman and Company	Chevron, TX	HDPE	XOMX 710179	Density	ASTM D1505	gm / cc	0.9450	0.9464
				Melt flow Index	ASTM D1238 <sup>(a)</sup>	gm / 10 min	0.11	0.14

(a) Condition 190/2.16

\* Data from SKAPS Quality Control



Product : TN 330-2-8  
Project : IESI JED Cell 10, FL

We, the Geocomposite Manufacturer, hereby certify the following for the material delivered to the above referenced project :

GEOCOMP ROLL#	FABRIC ROLL#	WEIGHT oz/sq yd	MD TENSILE lbs.	XMD TENSILE lbs.	MD TRAP lbs.	XMD TRAP lbs.	CBR PUNCTURE lbs.	AOS us sieve	PERM- ITY sec <sup>-1</sup>
57871020001	5787.266	8.31	231	238	104	113	696	80	1.39
	5787.201	8.38	227	241	103	111	666	80	1.38
57871020040	5787.254	8.34	232	245	96	107	655	80	1.36
	5787.234	8.37	235	242	99	117	654	80	1.36
57871020080	5787.262	8.24	234	241	101	115	682	80	1.39
	5787.240	8.12	233	240	102	118	694	80	1.36
57871020120	5787.251	8.34	232	245	96	107	655	80	1.36
	5787.239	8.32	228	244	98	105	684	80	1.36
57871020160	5787.242	8.12	233	240	102	118	694	80	1.36
	5787.225	8.47	232	238	105	108	680	80	1.38
57871020200	5787.231	8.37	235	242	99	117	654	80	1.36
	5787.271	8.39	233	244	100	114	672	80	1.39
57871020225	5787.276	8.60	230	236	97	112	674	80	1.35
	5787.273	8.60	230	236	97	112	674	80	1.35