

TerraGrid® RX1100

Data Sheet: Hanes Product #32161

TerraGrid RX1100 meets field-proven (30 years), U.S. industry standards for 'Type 1' biaxial geogrids. Produced in an ISO 9001 certified facility, **RX1100** is manufactured from quality polypropylene resin with no inclusion of post-consumer recycled resin. The punched and stretched (drawn) manufacturing process used for **RX1100** produces the following interrelated characteristics.

PROPERTY	PROCEDURE	U.S. Standard		Metric	
		MD	XMD	MD	XMD
Geometric¹					
Aperture Shape	Observed	Rectangular			
Aperture Open Area	ACE: CW-02215	75%			
Aperture Size (opening)	Measured	0.9 inch	1.3 inch	23 mm	30 mm
Rib Pitch	Measured	1.0 inch	1.4 inch	25.4 mm	35.5 mm
Rib Depth (height or thickness)	Measured	0.04 inch	0.03 inch	1.0 mm	0.76 mm
Rib Width	Measured	0.10 inch	0.12 inch	2.5 mm	3.3 mm
Rib Shape (cross section)	Observed	Rectangular			
Mechanical²					
Tensile Strength - Ultimate	ASTM D6637-09 Procedure B	850 lbs/ft	1,300 lbs/ft	12.4 kN/m	19.0 kN/m
Tensile Load @ 2% Strain		280 lbs/ft	450 lbs/ft	4.1 kN/m	6.6 kN/m
Tensile Load @ 5% Strain		580 lbs/ft	920 lbs/ft	8.5 kN/m	13.4 kN/m
Junction Efficiency ³	ASTM D7737/D6637	93%			
Radial Tensile Force @ ≈ 0.5% strain ⁴	ASTM D6241 (Mod.)	94 lbs/ft		69 kN/m	
Junction Strength	ASTM D7737	790 lbs/ft	1,210 lbs/ft	11.5 kN/m	17.6 kN/m
		99 lbs/rib	111 lbs/rib	0.44 kN/rib	0.49 kN/rib
Flexural Rigidity	ASTM D7748	250,000 mg-cm			
Aperture Stability	U.S. Army COE	3.3 cm-kg/deg = 0.32 m-N/deg			
Durability¹					
UV Degradation Resistance ^{5,9}	ASTM D4355/D6637	100%			
Carbon Black Content ⁶	ASTM D1603	1.0%			
Chemical Damage Resistance ^{7,9}	EPA 9090A	100%			
Installation Damage Resistance ^{8,9}	ASTM D5818/D6637	SM ≥ 100%, SP ≥ 100%, GP ≥ 93%			
Standard Packaging	Width	Length	Area		
	13 ft	246 ft	355 yd ²		

Footnotes:

- ¹ Nominal value(s)
- ² Unless indicated otherwise, values shown are minimum average roll values determined in accordance with ASTM D4759-02.
- ³ Expressed as a comparison of ASTM D7737 strength to ASTM D6637 strength of the same sample
- ⁴ Direct measurement of radial force per unit length using in-application confinement environment.
- ⁵ 500 hour exposure
- ⁶ Second burn conducted at 800° C
- ⁷ 120 day immersion
- ⁸ Materials characterized as Silty Sand (SM), Concrete Sand (SP) and AASHTO No. 57 (GP)
- ⁹ Expressed as a percentage of Ultimate Tensile Strength

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