

TBX3000 *Biaxial Geogrid*

Polypropylene - extruded single layer biaxial geogrid

Terrafix TBX3000 is a Polypropylene Single Layer Extruded Biaxial Geogrid. Used as an effective base reinforcement and subgrade improvement, Terrafix TBX3000 Biaxial Geogrid is inert to biological degradation and resists naturally encountered chemicals, alkalis, and acids. Polypropylene is stable within a pH range of 2 to 13.

Property	ASTM Test Method	Machine Direction Strength (MD)	Cross Machine Direction Strength (XMD)
Mechanical Properties			
• Ultimate Tensile Strength ⁽²⁾	D 6637	30.0 kN/m	30.0 kN/m
• Junction Strength ⁽²⁾	GRI-GG2	27.9 kN/m	27.9 kN/m
• Junction Efficiency	%	93%	93%
• Tensile Strength @ 2% Strain ⁽²⁾	D 6637	12.0 kN/m	12.0 kN/m
• Tensile Strength @ 5% Strain ⁽²⁾	D 6637	21.6 kN/m	22.0 kN/m
• Flexural Stiffness/Rigidity	D 7748	4806 g-cm	2619 g-cm
• Aperture Stability ⁽¹⁾		5.7 kg-cm/deg. @ 20kg-cm torque	
• Radial Stiffness at Low Strain ⁽³⁾		384.9 kN/m @ 0.5% strain	
• Multi-Axial Tension Test	D 5617		
• Vessel Pressure at Rupture			15.6 psi
• Axisymmetric Break Resistance Strain			7.3 %
• Average Deflection at Rupture			102 mm

Roll Properties

• Aperture Size	--	39mm (±1mm)	39mm (±1mm)
• Average Rib Width	--	4.0mm	4.0mm
• Average Rib Thickness	--	2.0mm	2.0mm
• Roll Size	--	50m	3.95m

Typical Geogrid Properties

• Minimum Carbon Black Content	D 4218	2%	2%
• Resistance to UV Degradation	D 4355	100%	

⁽¹⁾ In-plane torsional rigidity measured by applying a moment to the central junction of a 225mm x 225mm specimen restrained at its perimeter in accordance with U.S. Army Corps of Engineers Methodology for measurement of Torsional Rigidity (Kinney, T.C. Aperture Stability Modulus ref 3, 3.1.2000)

⁽²⁾ Values shown are MARV as per GRI.

⁽³⁾ Radial stiffness is determined from tensile stiffness measured in any in-plane axis from testing in accordance with ASTM D6637-01.