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SYNTEC PRODUCT COMPARISON

SYNTEC SBX 12 vs. TENSAR TriAx 140, TriAx 5, and TriAx 160

To be effective as reinforcement for base course or stabilization for weak subgrade, the geogrid product must not only have a adequate tensile strength properties, but also have the ability to interlock and confine soils. The following table compares the key material, strength, and performance characteristics for Syntec SBX 12 vs. Tensar TriAx 140, TriAx 5, and TriAx 160 tri-axial geogrid.

Product Properties		SYNTEC SBX 12 ¹	TENSAR TriAx 140 ¹	TENSAR TriAx 5 ¹	TENSAR TriAx 160 ¹
Physical Properties	Units	Values	Values	Values	Values
▪ Polymer Type		polypropylene	polypropylene	polypropylene	polypropylene
▪ Aperture Shape		rectangular	triangular	triangular	triangular
▪ Aperture Size – MD/XMD	mm (in)	25 (1.0) / 33 (1.3)	40 (1.60) / 40 (1.60)	40 (1.60) / 40 (1.60)	40 (1.60) / 40 (1.60)
▪ Rib thickness – MD/XMD	mm (in)	1.27 (0.05) / 1.27 (0.05)	1.2 (0.05) / 1.2 (0.05)	1.3 (0.05) / 1.2 (0.05)	1.6 (0.06) / 1.4 (0.06)
Index Properties					
▪ Tensile Modulus/Radial Stiffness @ 0.5% Strain – MD/XMD	kN/m (lb/ft)	438 (30,000) / 584 (40,000)	225 (15,430) ²	NP	300 (20,580) ²
Structural Integrity					
▪ Junction Efficiency	%	93	93	NP	93
▪ Flexural Stiffness	mg-cm	750,000	NP	NP	NP
▪ Aperture Stability	m-N/deg (kg-cm/deg)	0.65 (6.5)	0.3 (3.0)	NP	0.36 (3.6)
Durability					
▪ Resistance to Installation Damage	%SC/%SW/%GP	95 / 93 / 90	NP	NP	NP
▪ Resistance to Long Term Degradation	%	100	100	NP	100
▪ Resistance to UV Degradation	%	100	100	NP	100

NP= Not Published

Notes: 1. Information for geogrid products is obtained from the manufacturer's website and independent testing data. 2. Radial refers to minimum tensile strength measured in any in-plane axis. This chart is for comparison purpose only. Consult your local Syntec representative for current design assistance.