

CHECKMATE BXT4040-180 COMPOSITE GEOGRIDS

FOR COMBINED SOIL STABILIZATION | REINFORCEMENT WITH SEPARATION | FILTRATION PROPERTIES

Checkmate BXT4040-180 Composite Geogrid consists of Checkmate Biaxial RigidGrid (BX4040PP), heat bonded to a Non-Woven (GTX180) geotextile separator. The Checkmate Biaxial RigidGrid is manufactured out of Polypropylene by a unique punching and drawing process. This composite geogrid range is very effective for stabilizing weak soils that are saturated and susceptible to piping. This range is ideal for combined soil stabilization/reinforcement applications with enhanced separation and filtration properties of a woven geotextile combined with the high-modulus reinforcement properties of the Checkmate biaxial RigidGrids. The non-woven geotextile laminated to the BX RigidGrid will be very effective in keeping expensive imported material from being contaminated due to migration of fines from the saturated base soils.

BI-AXIAL GEOGRID PROPERTIES				
TENSILE PROPERTIES		TEST METHOD	UNIT	BX4040PP
40.7	MD	ASTM D 6637	kN/m	40.3
	XD	ASTM D 6637	kN/m	40.7
Strain at Ultimate ⁽¹⁾	MD	ASTM D 6637	%	17.5
	XD	ASTM D 6637	%	9.9
Tension at 2% Strain ⁽¹⁾	MD	ASTM D 6637	kN/m	14.9
	XD	ASTM D 6637	kN/m	15.8
Tension at 5% Strain ⁽¹⁾	MD	ASTM D 6637	kN/m	28.7
	XD	ASTM D 6637	kN/m	30.2
Junction Strength ⁽²⁾	MD	GRI-GG2	kN/m	37.1
	XD	GRI-GG2	kN/m	35.7
Flexural Rigidity ⁽²⁾	MD	ASTM D 1388 ⁽²⁾	mg-cm	3581386
	XD	ASTM D 1388 ⁽²⁾	mg-cm	3518476
True Initial Tensile Modulus ⁽²⁾	MD	ASTM D 6637	kN/m	888
	XD	ASTM D 6637	kN/m	1107

CHECKMATE BXT COMPOSITE GEOGRID Typical Applications:

- Road sub-base Reinforcement
- Soil stabilization over coastal roads
- Improvement of access roads to oil platforms
- Railway Ballast Reinforcement over soft foundations
- Soil stabilization/reinforcement for weak saturated soils
- Marine Applications

Disclaimer: Checkmate reserves the right to change these specifications without notice and at its sole discretion. The user of this specification sheet is required to obtain formal confirmation from Checkmate of the current specification of the product it intends to use.



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NON-WOVEN GEOTEXTILE PROPERTIES		TEST METHOD	UNIT	GTX180
Tensile Strength ⁽¹⁾	MD	ASTM D 4595	kN/m	8.8
	XD	ASTM D 4595	kN/m	8.8
Trapezoid Tear	MD	ASTM D 4533	kN/m	0.275
	XD	ASTM D 4533	kN/m	0.37
Grab Strength	MD	ASTM D 4632	N	780
	XD	ASTM D 4632	N	950
Puncture Strength		ASTM D 4833	N	385
CBR Mullen Burst ⁽¹⁾		ASTM D 3786	KPA	2100
Opening Size 090 (095)		ASTM D 4751	mm	0.07 - 0.2
Mass per Unit Area		ASTM D 5261	g/m ²	180
Vertical Permeability Coefficient		ASTM D 4491	Cm/s	K X (10 ₋₁ - 10 ₋₃), K = 1.0 - 9.9
Thickness		Nominal	mm	1.4
GEOGRID COMPOSITE				
Aperture Size (4)	MD	Nominal	mm	37.9
	XD	Nominal	mm	37.6
Roll Width (4)		Minimum	m	2
Roll Length (4) (5)		Minimum	m	50

Notes: (1) Average Values, (2) Flexural Rigidity measured using specimens longer than the standard specimen length described in ASTM D 1388, (3) Typical, (4) Custom Length Orders can be accommodated upon request.

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