

CHECKMATE BXT3030-180 COMPOSITE GEOGRIDS

FOR COMBINED SOIL STABILIZATION | REINFORCEMENT WITH SEPARATION | FILTRATION PROPERTIES

Checkmate BXT3030-180 Composite Geogrid consists of Checkmate Biaxial RigidGrid (BX3030PP), 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 | BX3030PP |
| Ultimate Tensile Strength (1) | MD | ASTM D 6637 | kN/m | 33.2 |
| | XD | ASTM D 6637 | kN/m | 31.1 |
| Strain at Ultimate (1) | MD | ASTM D 6637 | % | 14.0 |
| | XD | ASTM D 6637 | % | 6.9 |
| Tension at 2% Strain (1) | MD | ASTM D 6637 | kN/m | 11.9 |
| | XD | ASTM D 6637 | kN/m | 14.2 |
| Tension at 5% Strain (1) | MD | ASTM D 6637 | kN/m | 22.7 |
| | XD | ASTM D 6637 | kN/m | 26.7 |
| Junction Strength (2) | MD | GRI-GG2 | kN/m | 31.3 |
| | XD | GRI-GG2 | kN/m | 29.0 |
| Flexural Rigidity (2) | MD | ASTM D 1388 (2) | mg-cm | 1855537 |
| | XD | ASTM D 1388 (2) | mg-cm | 2003278 |
| True Initial Tensile Modulus (2) | MD | ASTM D 6637 | kN/m | 808 |
| | XD | ASTM D 6637 | kN/m | 765 |

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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