Alberta Government

Product ID: 8150-4-1-24
Initiation Date: May 2016
Revision Date: April 25, 2024

Product Evaluation

RE: Review of Titan TE-BXPP (TE-BX15PP, TE-BX20PP, TE-BX25PP, TE-BX30PP) Geogrids

PRODUCT
Titan TE-BX15PP, TE-BX20PP, TE-BX25PP, and TE-BX30PP Biaxial Geogrids are manufactured and distributed by Titan Environmental Containment, Sturgeon County, Alberta.

VENDOR CLAIMS AND INFORMATION

CLAIMS:
The Titan bi-axial geogrids provide an ideal solution for soil stabilization, sub-base reinforcement, foundation support and other highway challenges. They have high tensile stiffness at low strains and excellent resistance to construction damage and environmental exposure. They are mechanically and chemically stable in aggressive soil environments and are not susceptible to hydrolysis, environmental stress cracking and micro-organisms attack and they resist ultra-violet degradation. Company website: http://www.titanenviro.ca/

DESCRIPTION:
Titan's TE-BX bi-axial geogrid range is manufactured out of Polypropylene by a punching and drawing process resulting in a bi-directional oriented monolithic and an isotropic bi-axial geogrids. The geogrid features thick integral nodes and uniform square / rectangular apertures. The ribs are thicker and wider and allow a strong positive mechanical interlock with the soil particles.

POTENTIAL USAGE:
Soil stabilization, Sub-base reinforcement, Foundation support, Heavy duty pavements

STANDARDS:
ASTM D6637 tensile strengths,
GRI-GG2 Junction efficiency,
US Army COE method Aperture stability,
ASTM D 4218 Carbon Black Content,
ASTM D1388 mod. Flexural rigidity,

ALBERTA TRANSPORTATION AND ECONOMIC CORRIDORS COMMENTS

EXPERIENCE:
Alberta Transportation and Economic Corridors has some experience with other bi-axial geogrids.

APPLICATION STANDARDS:
Alberta Transportation and Economic Corridors does not have a standard for geogrids. All geogrid applications must be properly designed by a Professional Engineer (registration with APEGA). The use of geogrid reinforcement in MSE bridge abutments or wing walls applications shall confirm to the requirements of Alberta Transportation and Economic Corridors *Standard Specifications for Bridge Construction Section 25, Mechanically Stabilized Earth Walls*.

RECOMMENDATIONS:
Titan TE-BX15PP, TE-BX20PP, TE-BX25PP, and TE-BX30PP Biaxial Geogrids be listed as Reviewed Products under Alberta Transportation and Economic Corridors Products List, Geosynthetics – Geogrids - Proprietary, based on the information provided.

TRIAL PROJECTS

Titan TE-BX30PP used at 40:38,40 Kakwa River - Cutbank River (CON0018341) (2019)

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