

Product Evaluation

RE: Review of Rigid Grid Type 2 Bi Axial

PRODUCT

The Rigid Grid Type 2 Bi-Axial Geogrid is manufactured by Alliance Geosynthetics located in Galt, California and distributed by GPEC-Green Patch Environmental Consulting Ltd located in Edmonton, Alberta.

VENDOR CLAIMS AND INFORMATION

CLAIMS:

Rigid Grid Type 2 Bi-Axial Geogrid are plastic, grid like products produced in roll form. This product features high stiffness at low strain with excellent resistance to installation damage and environmental effects. The geogrid is manufactured such that their ribs and apertures form an integral structure. This facilitates mechanical interlock as larger aggregate particles partially penetrate through the geogrids apertures. When the overlying aggregate is compacted the effect is to provide an efficient means to transfer dynamic loads to the geogrid and thereby form a composite material with increased stiffness, for better performance when trafficked. Product website: <http://alliancegeo.com/>

DESCRIPTION:

Rigid Grid Type 2 Bi Axial Geogrid is manufactured using polypropylene which features high stiffness at low strain and excellent resistance to installation damage and environmental effects (UV chemical, biological attack, etc).

POTENTIAL USAGE:

Typical applications are: base reinforcement such as roads, storage yards and parking lots. BX geogrids can be used to reduce the required aggregate thickness by up to 60% on unpaved roads and optimize (cost saving of 10 to 20%) the pavement section in both flexible and rigid pavements that incorporate a granular layer within the main pavement structure. .

STANDARDS:

ASTM D6637 – Ultimate tensile strength
ASTM D6637 - Tensile strength @2% strain
ASTM D6637 - Tensile strength @5% strain
GRI-GG2 - Junction efficiency
ASTM D7748 - Flexural stiffness/rigidity
US ACE method – Aperture stability
ASTM D4355 – Resistance to UV degradation

ALBERTA TRANSPORTATION COMMENTS

EXPERIENCE:

Alberta Transportation has no experience with this specific product.

APPLICATION STANDARDS:

Alberta Transportation does not have a standard for geogrid. All geogrid applications must be properly designed by a Professional Engineer (full registration with APEGGA).

RECOMMENDATIONS:



Product ID: 8150-4-1-17
Initiation Date: June 2013
Revision Date: August 28, 2013
Expiry Date: August 2016

Rigid Grid Type 2 Bi-Axial Geogrid be listed as a Potential Product under Alberta Transportation Products List, Geosynthetics – Geogrids - BI-AXIAL GEOGRIDS – Proprietary, based on the information provided. Final acceptance as a proven product will be based on field performance.

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