

Product Evaluation

RE: Review of Tensar Biaxial Series (Type 1, Type 2)

PRODUCT

Tensar Biaxial (BX) Series (Type 1, Type 2) geogrids are distributed in Alberta by Nilex Inc.

VENDOR CLAIMS AND INFORMATION

CLAIMS:

Tensar Biaxial (BX) Series (Type 1, Type 2) geogrids are used for subgrade base course reinforcement in roadways application. Company website: www.tensarcorp.com.

DESCRIPTION:

Tensar Biaxial (BX) Series (Type 1, Type 2) geogrids are made using select grades of polypropylene or copolymers that resist high, short-term dynamic loads or moderate loads over longer time periods. These products carry loads applied in any direction in the plane of the geogrid.

POTENTIAL USAGE:

The Biaxial geogrid is used to laterally reinforce and confine granular aggregates to create a stronger composite structure, which increases the performance of the underlying subgrade or aggregate base course in roadways application.

STANDARDS:

ASTM D6637 Wide width tensile strength; tensile strengths at 2% and 5%
ASTM D5262 Creep reduced strength
ASTM D5732 Flexural stiffness
GRI-GG2 Junction efficiency
US Army Corps Torsional stiffness
ASTM D5818 sampling procedure

ALBERTA TRANSPORTATION COMMENTS

EXPERIENCE:

Alberta Transportation has no experience with this product.

APPLICATION STANDARDS:

Alberta Transportation does not have a standard for geogrid. All geogrid applications must be properly designed by a Professional Engineer (e.g., registration with APEGGA). Extensible reinforcement use in MSE bridge abutments or wingwall applications is under review.

RECOMMENDATIONS:

Alberta Transportation will make department staff aware of the Tensar Biaxial (BX) Series (Type 1, Type 2) geogrids be listed as a Proven Product under Alberta Transportation Products List, Geosynthetics – Geogrids - Proprietary, based on the information provided.

Fred Cheng

cc New Product Evaluation Standing Committee – Roger Skirrow

TRIAL PROJECTS

BX Type 1

- Golf Course Road – Edson – G.S. Holdings – 14,400m² – 2009
- AT 7829/09 Garden River Road, West of Wentzel – PineRidge Logging – 73,000m² – 2009
- AT 13264 – Grande Prairie Airport Base Rehab – Knelsen Rock Products – 7,000m² – 2012

BX Type 2

- Government of Alberta – Ft. Vermillion, High Prairie, Fairview – 31,000m² – 2010
- Ft. McKay Winter/Summer Access Road – Pacer Corporation – 113,400m² – 2011
- North East Residential Paving Collector Roads – Edmonton – 11,000m² – O’Hanlon – 2012