

Product Evaluation

RE: Review of Titan Swamp Grid 20 and Swamp Grid 30 (Former names TE-BXC18 and TE-BXC30 respectively) Geogrids Composites

PRODUCT

Titan Swamp Grid 20 and Swamp Grid 30 are manufactured and distributed by Titan Environmental Containment, Sturgeon County, Alberta. Company website: <http://www.titanenviro.ca/>

VENDOR CLAIMS AND INFORMATION

CLAIMS:

Titan Swamp Grid series coated Polyester (PET) geogrids are specifically designed for improved performance in soil reinforcement applications where strength develops uni-axially. The Titan UX Polyester geogrid is engineered to be mechanically and chemically stable, in both harsh construction installation phase and in aggressive soil environments. Titan UX Polyester geogrids are unaffected by soil microorganisms. A black PVC saturation coating provides chemical, mechanical, as well as ultraviolet protection.

DESCRIPTION:

Titan Pyramid uniaxial geogrid range is manufactured with high molecular weight, high tenacity polyester yarns using knitting process. The Titan polyester geogrids is dimensionally stable with uniform network of apertures providing significant tensile reinforcement capacity in one principal direction.

POTENTIAL USAGE:

Retaining wall systems,	Bridge abutments,	Vegetated retaining walls,
Steep Embankments,	Landfill liner reinforcement,	Mining applications

STANDARDS:

ASTM D6637 tensile strengths,	ASTM D 5262 Creep Reduced Strength,
GRI-GG4b Long Term Design Strength,	GRI-GG8 Molecular Weight,

ALBERTA TRANSPORTATION AND ECONOMIC CORRIDORS COMMENTS

EXPERIENCE:

Alberta Transportation and Economic Corridors has some experience with uni-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 Swamp Grid 20 and Swamp Grid 30 be listed as Reviewed Products under Alberta Transportation and Economic Corridors Products List, Geosynthetics – Geogrids - Proprietary, based on the information provided.

TRIAL PROJECTS

HWY15 Twinning Project B - 15:04 & 15:05 Between Highway 37 to W. of HWY 21 including construction of new North Saskatchewan River Bridge (2019) (CON0020287)

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cc New Products Evaluation Group – Kristen Tappenden