

## Product Evaluation

### **RE: Review of Maccaferri ParaGrid Series Geogrids (ParaGrid 30/5, ParaGrid 40/5, ParaGrid 50/5, ParaGrid 65/5, ParaGrid 80/5, ParaGrid 100/5, ParaGrid 120/5, ParaGrid 150/5, ParaGrid 175/5, ParaGrid 200/5)**

#### **PRODUCT**

Maccaferri ParaGrid Series Geogrids are manufactured and distributed in Alberta by Maccaferri Canada Ltd. Located at Cambridge Ontario.

#### **VENDOR CLAIMS AND INFORMATION**

##### **CLAIMS:**

Maccaferri ParaGrid Series Geogrids are manufactured from high tenacity, multifilament polyester yarns aligned and co-extruded with polyethylene (LLDPE) to form polymeric strips. The heavy LLDPE coating enables Paragrid Series geogrids can be used as reinforcement of contaminated or highly aggressive materials for use in environmental applications. Company website:

<https://www.maccaferri.com/ca/>

##### **DESCRIPTION:**

ParaGrid Series Geogrids are uniaxial geogrids of planner structures, consisting of a regular array of geosynthetic straps, which comprise cores of polyester tendons encased in a polyethylene sheath. The main strips are laid flat in the machine direction with a secondary strip laid and welded across the full width in the cross direction.

##### **POTENTIAL USAGE:**

MSE Wall, embankment over soft soil, sink holes, piled embankments, steep and shallow slopes, basal foundation

##### **STANDARDS:**

ISO/TR 20432:2007 guidelines for the determination of the long-term strength of geosynthetics for soil reinforcement.

ASTM D6637 Ultimate tensile strength (MD); ASTM D5261 Mass per Unit Area;

GRI-GG7 Polymeric (Core) Carboxyl End Group (CEG Max.); GRI-GG8 Molecular Weight;

#### **ALBERTA TRANSPORTATION AND ECONOMIC CORRIDORS COMMENTS**

##### **EXPERIENCE:**

Alberta Transportation and Economic Corridors has no experience with this product.

##### **APPLICATION STANDARDS:**

Alberta Transportation and Economic Corridors does not have a standard for geogrids. All geogrid applications must be properly designed and stamped by a Professional Engineer (registration with APEGA).

*The use of extensible 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:**

Maccaferri ParaGrid Series Geogrids (ParaGrid 30/5, ParaGrid 40/5, ParaGrid 50/5, ParaGrid 65/5, ParaGrid 80/5, ParaGrid 100/5, ParaGrid 120/5, ParaGrid 150/5, ParaGrid 175/5, ParaGrid 200/5) be listed as Reviewed Products under Alberta Transportation and Economic Corridors Products List, Geosynthetics – Geogrids - Proprietary, based on the information provided.

**TRIAL PROJECTS**

Hwy 64 over Montagneuse River, N.W of Village of Hines Creek (TND13698) Installed on August 20, 2018

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cc New products Evaluation Group – Roger Skirrow