

Product Evaluation

RE: Review of MacGrid Geogrids EG Series (EG20S, EG25S, EG30S, EG40S)

PRODUCT

MacGrid Geogrids EG Series (EG20S, EG25S, EG30S, and EG40S) are manufactured by Taian Modern Plastic Co. LTD located in Taian City, Shandong Province, China. It is supplied by Maccaferri Canada LTD located in Cambridge, ON.

VENDOR CLAIMS AND INFORMATION

CLAIMS:

Maccaferri MacGrid EG products distribute applied loads over a greater area reducing vertical pressure on the subgrade. This offers a longer design life compared with a similar unreinforced section. In base reinforcement applications such as paved or unpaved roads, MacGrid EG is used to provide reinforcement and confinement to base course materials. With MacGrid EG an effective stress transfer mechanism between geogrids and the surrounding soils is established and applied loads are distributed over wider area. Product web link: <http://www.maccaferri.ca/>

DESCRIPTION:

MACGRID® EG geogrids are high modulus polypropylene bi-axial geogrids, produced by an extrusion process characterized by a tensile resistance both in the longitudinal and in the transverse direction. They are inert to all chemical existing in natural soils 4<ph<9.

POTENTIAL USAGE:

MACGRID® EG products are mainly used for “soil stabilization” and for some kinds of soil reinforcements applications such as strengthening road subgrade.

STANDARDS:

ASTM D6637 Tensile and ultimate tensile strengths, GRI-GG2 Junction strength
ASTM D1388 (mod) Flexural Rigidity, ASTM D1777 Minimum Rib Thickness

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 geogrid. All geogrid applications must be properly designed by a Professional Engineer (e.g., registration with APEGA). *The use of extensible reinforcement in MSE bridge abutments or wing walls shall conform to the Standard Specifications for Bridge Construction Section 25, Mechanically Stabilized Earth Walls.*

RECOMMENDATIONS:

MacGrid Geogrids EG Series (EG20S, EG25S, EG30S, EG40S) be listed as a Reviewed Product under Alberta Transportation and Economic Corridors Products List, Geosynthetics – Geogrid – Proprietary, based on the information provided.

TRIAL PROJECTS

Rishi Adhikari
cc New Products Evaluation Group – Roger Skirrow