

Product Evaluation

RE: Review of Excel PP5-12 Turf Reinforced Mat (TRM)

PRODUCT

Excel PP5-12 TRM, a Permanent Erosion Control Blanket, is manufactured by Western Green located in Evansville, Indiana. It is distributed in Alberta by Nilex located in Edmonton.

VENDOR CLAIMS AND INFORMATION

CLAIMS:

Excel PP5-12 TRM has a RUSLE Cover Factor of 0.03 and is typically suitable for slopes up to 1H:1V. It is rated for channel flows up to 2.7 m/s and 134 Pa shear stress for unvegetated condition and 4.6 m/s of flow and 575 Pa shear stress for vegetated condition. It has Tensile Strengths of 4.4 kN/m (MD) and 3.2 kN/m (TD). Website: <https://www.westerngreen.com/>

DESCRIPTION:

Excel PP5-12 is a permanent, three-dimensional TRM that provides immediate erosion protection and long-term turf reinforcement and is intended for slope or channel applications requiring erosion protection for greater than thirty-six months. It is composed of 100% synthetic components. A matrix of green synthetic fibers is mechanically (stitch) bound between two UV stabilized, heavy-duty synthetic nets. Stitching is secured on two-inch centers using UV stabilized, heavy-duty Polypropylene thread. It is 9mm (0.36") thick.

POTENTIAL USAGE:

Typical applications are for highway ditches, and embankments for slopes up to 1H: 1V.

STANDARDS:

ASTM D 7322: Standard Test Method for Determination of Temporary Degradable RECP Performance in Encouraging Seed Germination and Plant Growth

ASTM D6459: Standard Test Method for Determination of Rolled Erosion Control Product Performance in Protecting Hillslopes from Rainfall-Induced Erosion

ASTM D6460: Standard Test Method for Determination of Rolled Erosion Control Product Performance in Protecting Earthen Channels from Stormwater-Induced Erosion

ALBERTA TRANSPORTATION COMMENTS

EXPERIENCE:

Alberta Transportation has tried a large variety of TRMs in the past.

APPLICATION STANDARDS:

Alberta Transportation standard for Rolled Erosion Control Products is documented in Alberta Transportation Products List, and Erosion, and Sediment Control Manual BMP #13.

RECOMMENDATIONS:

Excel PP5-12 TRM be listed as a Potential Product under Alberta Transportation Product List, Erosion Control Systems, Rolled Erosion Control Blankets – Permanent RECPs – TRM - Type C, based on the information provided. Final acceptance as a proven product will be based on field performance.

TRIAL PROJECTS

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