

Product Evaluation

RE: Review of Tencate Mirafi H2Ri Geosynthetic Composite

PRODUCT

Tencate Mirafi H2Ri Geosynthetic Composites are manufactured by TenCate Geosynthetics Americas, Pendergrass, Georgia and distributed by Layfield Construction Products, Alberta.

VENDOR CLAIMS AND INFORMATION

CLAIMS:

When superior performance, flexibility and versatility are necessary, TenCate Mirafi® H2Ri -Series makes the difference for varying application needs including: base course reinforcement and subgrade stabilization for road, runway and railway construction; frost heave/frost boils; embankment stabilization on soft foundations; reinforcement for mechanically stabilized earth (MSE) structures; liner support, voids bridging, reinforcement over soft hazardous pond closures and other environmental market applications. Company website: <http://www.tencate.com/>

DESCRIPTION:

Tencate Mirafi H2Ri Geosynthetic Composites is a high-strength woven geotextile with wicking capability. Hydrophilic and Hygroscopic 4DG™ Fibers in the geotextile provides wicking action and drains the water.

POTENTIAL USAGE:

Separation, Filtration, Soil Reinforcement, Confinement, Drainage Soil stabilization

STANDARDS:

ASTM D 4595 Tensile Strengths, ASTM D 4491 Permittivity, ASTM D 6767 Pore size Characteristic of Geosynthetic, ASTM C 1559 Determining Wicking of Fibrous Glass Blanket Insulation (Aircraft Type)

ALBERTA TRANSPORTATION COMMENTS

EXPERIENCE:

Alberta Transportation has experience with geotextiles. Alberta Transportation has no direct experience with geotextiles with wicking property that are purported to help prevent or reduce frost heaves.

APPLICATION STANDARDS:

Alberta Transportation Standard Specifications for Highway Construction, Section 5.31 Geotextile is the standard for material separation and soil stabilization. However, there is no standard for geotextiles with wicking and drainage property. The use of geotextiles with wicking and drainage property shall be designed by a Professional Engineer registered with APEGA.

RECOMMENDATIONS:

Tencate Mirafi H2Ri Geosynthetic Composite be listed as a Proven Product under Alberta Transportation Products List, Geosynthetics – Geonet/Geocomposite/Wick Drain - Proprietary, based on the information provided and the performance at the trial site.

TRIAL PROJECTS

Hwy40 North of approximately 2.6KM north of Athabasca River August 19, 2020

Rishi Adhikari

cc New Products Evaluation Group – Kristen Tappenden