

Product Evaluation

RE: Review of Tough Cell (Formerly listed as Neoweb)

PRODUCT

Tough Cell is manufactured by PRS Mediterranean Ltd. with office in London, United Kingdom and it is distributed in Alberta by Paradox Access Solutions Inc. located in Acheson, Alberta.

VENDOR CLAIMS AND INFORMATION

CLAIMS:

Tough Cell is a 4th generation geocell. It is suitable for use in the base and subbase layers of roads and highways, for slope and channel erosion control and for retaining walls. Manufacturer website: www.prs-med.com.

DESCRIPTION:

PRS manufactures the Tough Cell cellular confinement systems, based on Neoloy, a newly developed polymeric alloy with very long-term durability. The alloy is based on dimensionally stable polymer nano fibers (polyester or nylon) in a polyolefin matrix. Tough Cell comes in four types with varying wall thicknesses and cell dimensions: Type A, Type B, Type C and Type D.

POTENTIAL USAGE:

Highways, gravel roads, retaining walls and slope and channel erosion control.

STANDARDS:

ASTM D6992 Accelerated creep rate of polymers, Dynamic Mechanical Analysis
ASTM D3895, ISO 11357-6 Oxidation resistance

ALBERTA TRANSPORTATION COMMENTS

EXPERIENCE:

Alberta Transportation has some experience with cellular confinement systems.

APPLICATION STANDARDS:

Alberta Transportation does not have a standard for cellular confinement systems.

RECOMMENDATIONS:

Tough Cell be listed as a Proven Product under Alberta Transportation Products List – Erosion and Sediment Control Systems – Cellular Confinement Systems – Proprietary, based on the information provided.

RESTRICTIONS ON USE:

Caveat: Tough Cell comes with different strengths, cell wall thicknesses, cell wall heights and cell dimensions. A Professional Engineer registered with APEGA shall determine appropriate type of Tough Cell to be used in the project.

TRIAL PROJECTS

Slope remediation on cliff street SW near 23rd Ave SW intersection, Calgary.
Hwy 40:34 KM16.4 (Geohazard site GP32 S-Curves below grouted rip-rap)

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