

Product Evaluation

RE: Review of Reinforced Polyethylene Liner – RPE11BB

PRODUCT

RPE11BB Canal Liner is fabricated and distributed by Layfield Group, Edmonton, Alberta.

VENDOR CLAIMS AND INFORMATION

CLAIMS:

Reinforced Polyethylene (RPE) has been used as an economical geomembrane material by Layfield for over 25 years. RPEs have UV resistance for short exposed use, are flexible in extremely low temperatures, and have very good chemical resistance. Product web link: <http://www.layfieldgroup.com/pages/home/default.aspx>

DESCRIPTION:

RPEs are most commonly used for seepage control. RPE is made up of woven, pre-stressed tapes made from HDPE. For RPE 15 and 25 the HDPE tapes are coated with a film of LDPE which makes the liner impermeable to water. In the case of OR RPE 25 the HDPE tapes are coated with a thin film of LLDPE, giving the liner enhanced chemical resistance to hydrocarbons and other chemicals.

POTENTIAL USAGE:

Canal liners, drilling sump liners, soil remediation liners, tailings dam liners, and interim landfill caps.

STANDARDS:

ASTM D5034 Tensile strength
ASTM D751 Elongation
ASTM D2261 Tear strength
ASTM D2136 Low temperature bend
ASTM D3786 Burst strength
G53-84 UV resistance
ASTM D6392 Heated bonded seam strength and peel adhesion strength

ALBERTA TRANSPORTATION COMMENTS

EXPERIENCE:

Alberta Transportation has no experience with RPE15 used in canal liner.

APPLICATION STANDARDS:

AT does not have a standard for canal liner utilizing Reinforced Polyethylene geomembranes.

RECOMMENDATIONS:

RPE11BB Canal Liner listed as a Proven Product under Alberta Transportation Product List, Geosynthetics – Geomembranes – Canal Liner - Proprietary, based on the information provided.

TRIAL PROJECTS

Eastern Irrigation District Canals – H876, S of Tilly & Bantry