SOLMAX

HydrEra Energy Services (US) Corp

February 11, 2020

Attn: Danny Kubek
Re: Solmax F3 geomembrane vs Enviroliner

Dear Mr.Kubek

Geomembrane prefabrication for above ground storage tanks requires high flexibility and high stress cracking resistance. The blending of HDPE and LLDPE resins for the geomembrane production, as Enviroliner does, is an alternative solution. However, they will never beat the F3 series on the aforementioned application. The reasons are:

F3 is made of a high molecular weight hexane copolymer tailored for geomembrane applications. It can be exposed to the sun UV radiation and can be considered the most flexible PE geomembrane available in the market. Its ability compared to standard LLDPE geomembranes is outstanding. It can be tailored to exceed the lifespan and UV resistance of GM13 HDPE geomembranes.

The outstanding flexibility of F3 geomembranes is evidenced through its multiaxial strain performance (>90% vs 80% MARV of EL 6040), which is tested per ASTM D5617. The uniaxial elongation of F3 geomembranes is also superior. In fact, testing F3 elongation at break using the same standard used for EL6040 (gauge length equal to 2 inches) yields results that are greater than 1070%.

In conclusion, the risk of the panels cracking is significantly reduced when using very flexible products, such as F3. This is especially true under cold weather conditions with EL products compared to F3. If the material is for use in Canada or in northern USA, the standard UV exposure will not be as critical as it would be in tropical or arid regions. For cold regions, flexibility and stress crack resistance are the greater concern for the designer, rather than UV stability, making the standard F3 product the ideal choice.

Should you need further information, please do not hesitate to contact us.

Sincerely,

Mauricio Ossa
Senior Technical Manager
Houston- Texas