PRODUCT DESCRIPTION SHEET

SOLMAX

GSE HD Textured Geomembrane

Double Sided Textured

High Density Polyethylene Geomembranes

The **GSE** HD Liner Series is a high-density polyethylene (HDPE) geomembrane that exceeds the requirements of the GRI-GM13 specification standard for HDPE geomembrane liners. A textured geomembrane provides increased frictional resistance for improved stability on slopes. The ability to use a steeper slope provides cost savings by increasing the capacity of the project.

HDPE is resistant to a variety of harsh chemicals, making it a great choice for applications such as tailing and heap leach facilities, hazardous waste landfills, and containment facilities.

Applications

- Solid and Liquid Waste Containment
- Mining Ponds and Heap Leach Pads
- Coal Combustion Residual Containment
- Pond Lining for Various Applications

Primary functions

- Containment
- Barrier

Proven Performance

- High UV Resistance
- Exceptional Chemical Resistance
- Excellent Stress Crack Resistance
- Lowest Permeability Among Polymers
- Excellent weldability under a variety of conditions
- Excellent long term repairability from mechanical damage
- Available in a variety of colors

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The GSE HD Liner Series comes in standard black and is available in a variety of other colors, including green for more aesthetic landfill caps and white for a solar reflective upper surface. White geomembrane can significantly reduce the amount of heat absorbed by the liner during installation. This provides a safer work environment and reduces wrinkling of the geomembrane due to thermal contraction and expansion. Lighter color membranes also improve the ability to visually observe scratches, gouges and defects at the surface.

PROPERTY	TEST METHOD	PRODUCT				
		30 mil (0.75mm)	40 mil (1.00 mm)	60 mil (1.50 mm)	80 mil (2.00 mm)	100 mil (2.50 mm)
Thickness - min. avg. mil (mm)	ASTM D5994	30 (0.75)	40 (1.00)	60 (1.50)	80 (2.00)	100 (2.50)
Thickness - min., mils (mm)	ASTM D5994	27 (0.68)	36 (0.90)	54 (1.35)	72 (1.80)	90 (2.25)
Density, g/cm3	ASTM D792	≥ 0.94	≥ 0.94	≥ 0.94	≥ 0.94	≥ 0.94
Tensile Properties (min. avg.)	ASTM D6693					
Strength at Break, ppi (kN/m)		66 (11.6)	88 (15)	132 (23)	176 (31)	220 (39)
Strength at Yeild, lb/in (kN/m)		66 (12)	88 (15)	132 (23)	176 (31)	220 (39)
Elongation at Break, %		150	150	150	150	150
Elongation at Yeild, %		12	13	13	13	13
Tear Resistance -min. avg., lbf (N)	ASTM D1004	23 (100)	30 (135)	45 (200)	60 (265)	75 (335)
Puncture Resistance -min. avg., lbf (N)	ASTM D4833	68 (300)	90 (400)	120 (535)	152 (675)	180 (800)
Carbon Black Content, %	ASTM D4218	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0
Carbon Black Dispersion, Category	ASTM D 5596	Cat. 1 & Cat. 2	Cat. 1 & Cat. 2	Cat. 1 & Cat. 2	Cat. 1 & Cat. 2	Cat. 1 & Cat. 2
Asperity Height -min. avg., mil (mm)	ASTM D 7466	16 (0.40)	16 (0.40)	16 (0.40)	16 (0.40)	16 (0.40)
Stress Crack Resistance -SP-NCTL, hr	ASTM D 5397	500	500	500	500	500
Oxidative Induction Time, - Std. min. avg., mins	ASTM D8117	100	100	100	100	100
Available Color Options	Black, White and Green*					

TYPICAL ROLL DIMENSIONS						
Roll Length, ft		830 (253)	700 (213.4)	520 (158.5)	400 (121.9)	330 (100.6)
Roll Width, ft		22.5 (6.86)	22.5 (6.86)	22.5 (6.86)	22.5 (6.86)	22.5 (6.86)
Roll Area, ft^2		18,675 (1,735.6)	15,750 (1,463.9)	11,700 (1,087.3)	9,000 (836.2)	7,425 (690.1)

NOTES:
1. The values listed in the tables of this specification are to be interpreted according to the designated test method; they are neither minimum average roll values (MARV) nor maximum average roll values (MaxARV).
2. The information contained herein is provided for reference purposes only and is not intended as a warranty or guarantee. Final determination of suitability for use contemplated is the sole responsibility of the user. SOLMAX assumes no liability in connection with the use of this information.
* Additional colors available upon request

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