The Pioneer Of Geosynthetics

S I N C E 1 9 7 2

Product Data Sheet

GSE GundWall Vertical Barrier System

GSE GundWall is a smooth, high quality, high density polyethylene (HDPE) geomembrane produced from specially formulated, virgin polyethylene resin. This polyethylene resin is designed specifically for flexible geomembrane applications. It contains approximately 97.5% polyethylene, 2.5% carbon black and trace amounts of antioxidants and heat stabilizers; no other additives, fillers or extenders are used. GSE GundWall has outstanding chemical resistance, mechanical properties, environmental stress crack resistance, dimensional stability and thermal aging characteristics. GSE GundWall has excellent resistance to UV radiation and is suitable for exposed conditions. GSE GundWall interlock is sealed with either GSE HyperTite or GSE HyperBlok. GSE HyperTite is a hydrophilic vulcanized expansive rubber gasket for the sealing joints. GSE HyperBlok is a single component hydrophilic mastic designed for sealing smooth to very irregular construction joints and pipe penetrations.

Product Specifications

TESTED PROPERTY	TEST METHOD	FREQUENCY	MINIMUM VALUE	
Thickness, (minimum average) mil (mm) Lowest individual reading (-10%)	ASTM D 5199	every roll	80 (2.00) 72 (1.80)	100 (2.50) 90 (2.30)
Desity, g/cm^3	ASTM D 1505	200,000 lb	0.94	0.94
Tensile Properties (each direction) Strength at Break, lb/in-width (N/mm) Strength at Yield, lb/in-width (N/mm) Elongation at Break, % Elongation at Yield, %	ASTM D 6693, Type IV Dumbell, 2 ipm G.L. 2.0 in (51 mm) G.L. 1.3 in (33 mm)	20,000 lb	 304 (53) 168 (29) 700 12	 380 (67) 210 (37) 700 12
Tear Resistance, lb (N)	ASTM D 1004	45,000 lb	56 (249)	70 (311)
Puncture Resistance, lb (N)	ASTM D 4833	45,000 lb	144 (640)	56 (249)
Carbon Black Content, %	ASTM D 1603*/4218	20,000 lb	2.0	56 (249)
Carbon Black Dispersion	ASTM D 1004	45,000 lb	+Note 1	+Note 1
Notched Constant Tensile Load, hr	ASTM D 1004	200,000 lb	300	300

NOTES:

- +Note 1: Dispersion only applies to near spherical agglomerates. 9 of 10 views shall be Category 1 or 2. No more than 1 view from Category 3.
- GSE GundWall available in panels 3 ft - 25 ft wide.
- All GSE geomembranes have dimensional stability of ±2% when tested with ASTM D 1204 and LTB of ≤ 77° C when tested with ASTM D 746.
- These product specifications meet or exceed GRI GM13.
- *Modified.

GSE HyperTite

PROPERTY	VALUE	TEST METHOD
Expansion in Water	340% (1 day) & 720% (4 days)	ASTM D 471-75
Tensile Strength	Approx. 1,109 psi	ASTM D 412
Elongation of Break	Approx. 620%	ASTM D 412
Shore A Hardness	Approx. 53	ASTM D 2240
Specific Density	Approx. 1.27	ASTM D 471-75

GSE HyperBlok

PROPERTY	VALUE	TEST METHOD
Solids	100%	
Uncured		
Viscosity	Gel/Paste	
Density (at 20°C, 68°F)	Approx. 90 lbs/ft^3	ASTM D 3574-95
Slump in Vertical Applications	1/8 in	
Hand Dry (at 68°F & 60% rel. humity)	10 hrs	
Flash Point	>266°F	ASTM D 93
Cured (7 days at 25° C (77° F) 1 cm Thick)		
Elongation at Break	Approx. 625%	ASTM D 3574-95
Tensile Strength	Approx. 312 psi	ASTM D 412
Resistance to Hydrostatic Pressure	Up to 492 ft of water column	Test DNC
Swelling Capacity in Contact with Water	Swells to approx. 200% of its Original Dry Volume	Test Report KUL University

NOTES:

- Dimensions:1/4" diameter x 551 ft long.
- The data shown above reflects typical results based on laboratory testing under controlled conditions. Reasonable variations from the data shown above may result.

D5140GW R05/21/09

NORTH AMERICA 800.435.2008 281.443.8564 • **EUROPE & AFRICA** 49.40.767420 • **ASIA PACIFIC** 66.2.937.0091 • **SOUTH AMERICA** 56.2.595.4200 • **MIDDLE EAST** 20.23.828.8888

www.gseworld.com