

Geomembrane – High Density Polyethylene

Product Data Sheet

Penteco HD-S80

80 mil HDPE

Smooth Surface

- ❖ **Containment**
- ❖ **Erosion Control**
- ❖ **Leak Detection**
- ❖ **Water Proofing**
- ❖ **Protection**

HDPE geomembranes have a high dense cell structure making them an ideal choice for containment applications. Its low cost, high chemical resistance, and excellent weathering properties further promote it to be the world's most popular geomembrane.

HDPE geomembranes are produced in various thicknesses, textures, and performance standards. Penteco's HDPE series meets or exceeds GRI's GM-13 specifications. With any geomembrane, it is crucial to narrow down the design parameters in order to match it with the best suited product.

HD-S80			Minimum Average Values	
Property	Test Method	Frequency	Imperial	Metric
Thickness (min. average)	ASTM D-5199	Per Roll	80 mil	2.0 mm
Thickness (minimum)		Per Roll	72 mil	1.8 mm
Density	ASTM D-1505	200,000 lbs (90,000 kg)	0.94 g/cm ³	0.034 lb/in ³
Tensile Properties				
Yield Strength	ASTM D-6693 Type IV	20,000 lbs (9,000 kg)	168 lb/in	29 KN/m
Break Strength			304 lb/in	53 KN/m
Yield Elongation			12	12
Beak Elongation			700	700
Tear Resistance	ASTM D-1004	45,000 lbs (20,000 kg)	56 lb	249 N
Puncture Resistance	ASTM D-4833	45,000 lbs (20,000 kg)	144 lb	640 N
Stress Crack Resistance	ASTM D-5397	200,000 lbs (90,000 kg)	500 hrs	500 hrs
Carbon Black Content	ASTM D-4218	20,000 lbs (9,000 kg)	2.0 % - 3.0%	2.0 % - 3.0%
Carbon Black Dispersion	ASTM D-5596	45,000 lbs (20,000 kg)	Only near spherical agglomerates as per GRI-GM13	
Oxidative Induction Time	ASTM D-8117	200,000 lbs (90,000 kg)	100 mins	100 mins
Oven Aging - % retained after 90 days	ASTM D-8117	200,000 lbs (90,000 kg)	80%	80%
UV Res. - % retained after 1600 hrs	ASTM D-5885	200,000 lbs (90,000 kg)	50%	50%
Dimensions				
Typical Roll Size	Measured		22.5 ft x 435 ft	6.86 m x 132.6 m
Area	Calculated		9,788 ft ²	909 m ²

Notes:

- (1) Roll Widths/ Lengths vary based on manufacturer.
- (2) All roll widths/lengths have a tolerance of ±1 %.
- (3) Custom roll lengths can be ordered. Transportation cost might be affected.
- (4) Penteco is a distributor for this product with manufacturing partners based out of Canada & USA.
- (5) Manufacturer's data sheet provided at time of purchase.
- (6) Product specifications meets or exceeds GRI's GM 13.

DISCLAIMER: The data above represents the manufacturer's laboratory testing of their product. It is the user's responsibility to determine the suitability of the products. Penteco is a distributor for these products through its manufacturing partners. Penteco will provide the manufacturers data sheet at the time of sale. There may be very slight variation, but overall, the data represents standard industry specifications. Penteco and manufacturing partners assume no liability, nor can they provide any warranty, without having additional information regarding the use of the products. The same goes for any infringement on patents - no permission can be granted without further disclosure.

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