

# Geomembrane – High Density Polyethylene

## Product Data Sheet

### Penteco HD-T40 40 mil HDPE Textured 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-T40				
Property	Test Method	Frequency	Imperial	Metric
Thickness (nominal)	ASTM D-5994	Per Roll	40 mil	1.0 mm
Thickness (min. average)			38 mil	0.95 mm
Lowest ind. for 8 out of 10 values			36 mil	0.90 mm
Lowest ind. for any of 10 values			34 mil	0.85 mm
Asperity Height	ASTM D-7466	Every 2 <sup>nd</sup> Roll	20 mil	0.51 mm
Density	ASTM D-1505	200,000 lbs (90,000 kg)	0.034 lb/in <sup>3</sup>	0.94 g/cm <sup>3</sup>
<b>Tensile Properties</b>				
Yield Strength	ASTM D-6693 Type IV	20,000 lbs (9,000 kg)	84 lb/in	15 KN/m
Break Strength			60 lb/in	10 KN/m
Yield Elongation			12	12
Beak Elongation			100	100
Tear Resistance	ASTM D-1004	45,000 lbs (20,000 kg)	28 lb	125 N
Puncture Resistance	ASTM D-4833	45,000 lbs (20,000 kg)	60 lb	267 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%
<b>Dimensions</b>				
Typical Roll Size	Measured	Single-Sided Textured	22.5 ft x 787 ft	6.86 m x 240 m
Area	Calculated		17,707 ft <sup>2</sup>	1646 m <sup>2</sup>
Typical Roll Size	Measured	Double-Sided Textured	22.5 ft x 755 ft	6.86 m x 230 m
Area	Calculated		16,987 ft <sup>2</sup>	1578 m <sup>2</sup>

#### 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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