

Penteco LLDPE Smooth Surface

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

LLDPE geomembranes have a lower dense cell structure making them more flexible, easier to install, and less sensitive to stress cracking than HDPE geomembranes. Although, further comparison shows LLDPE has lower UV resistance, it's still considered a great option for exposed applications.

LLDPE liners have better tensile properties allowing it to accommodate stretching and creasing better than HDPE - this is a critical design factor for buried applications. Due to its flexibility, thinner LLDPE geomembranes can be prefabricated in larger panels saving installation time, cost and a better-quality install.

LLDPE Geomembrane Comparison Table				Product Series			
Property	Test Method	Frequency	Unit	LD-S30	LD-S40	LD-S60	LD-S80
Thickness (min. average)	ASTM D-5199	Per Roll	mil (mm)	30 (0.75)	40 (1.0)	60 (1.5)	80 (2.0)
Thickness (min.)		Per Roll	mil (mm)	27 (0.68)	36 (0.90)	54 (1.35)	72 (1.8)
Density	ASTM D-1505	200,000 lbs (90,000 kg)	g/cm ³	0.939	0.939	0.939	0.939
Tensile Properties	ASTM D-6693 Type IV	20,000 lbs (9,000 kg)	lb/in (N/mm)	114 (20)	152 (27)	228 (40)	304 (53)
Break Strength			%	800	800	800	800
Beak Elongation							
Tear Resistance	ASTM D-1004	45,000 lbs (20,000 kg)	lb (N)	16 (93)	22 (125)	33 (187)	44 (249)
Puncture Resistance	ASTM D-4833	45,000 lbs (20,000 kg)	lb (N)	54 (240)	72 (320)	108 (480)	144 (640)
Axi-Symmetric Break Resistance Strain	ASTM D-5617	200,000 lbs (90,000 kg)	%	30	30	30	30
Carbon Black Content	ASTM D-4218	20,000 lbs (9,000 kg)	%	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0
Carbon Black Dispersion	ASTM D-5596	45,000 lbs (20,000 kg)	category	Only near spherical agglomerates as per GRI-GM17			
Oxidative Induction Time	ASTM D-8117	200,000 lbs (90,000 kg)	min	100	100	100	100
Oven Aging - % retained after 90 days	ASTM D-8117	200,000 lbs (90,000 kg)	%	35	35	35	35
UV Res. - % retained after 1600 hrs	ASTM D-5885	200,000 lbs (90,000 kg)	%	35	35	35	35

Notes:

- (1) All roll widths/lengths have a tolerance of ±1 %.
- (2) Custom roll lengths can be ordered. Transportation cost might be affected.
- (3) Penteco is a distributor for this product with manufacturing partners based out of Canada & USA.
- (4) Manufacturer's data sheet provided at time of purchase with adjusted widths/lengths.
- (5) Penteco's LLDPE specifications are equivalent to GRI's GM 17 standard.

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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