



HERCULINE SPECIFICATIONS HDPE Smooth

Herculine High Density Polyethylene is produced from virgin polyethylene resins. Herculine HDPE has outstanding chemical resistance, mechanical properties, environmental stress crack resistance, dimensional stability, and thermal aging characteristics. Herculine HDPE contains approximately 97.5% polymer and 2.5% carbon black, antioxidants and heat stabilizers, and contains no other additives, fillers or extenders. Herculine HDPE has excellent UV resistance. Herculine HDPE does not contain plasticizers which can migrate to the surface, causing premature aging. Manufactured from virgin polyethylene resins, it is designed to provide a high quality, economical geomembrane.

Properties	Test Method	Typical Average Roll Values			
Color		Black	Black	Black	Black
Thickness, mils – (minimum average) • Lowest Individual Value -10%	ASTM D5199	12	20	30	40
Density, gram/cm ³ - (min.)	ASTM D1505	.94	.94	.94	.94
Tensile Properties – Each Direction	ASTM				
Tensile Strength at Break, lbs/in width (N/mm)	D6693 Type IV	45 (8)	76 (13)	114 (20)	152 (27)
Tensile Strength at Yield, lbs/in width (N/mm)	Dumbell, 2 ipm	24 (4)	40 (7)	63 (11)	84 (15)
Elongation at Break, %	G.L. 2.0 in	700	700	700	700
Elongation at Yield, %	G.L. 1.3 in	12	12	12	12
Tear Resistance, lbs. (N)	ASTM D1004	8 (35)	13 (60)	21 (93)	28(125)
Puncture Resistance, lbs. (N)	ASTM D4833	21(93)	36(160)	54(240)	72(320)
Carbon Black, % (minimum)	ASTM D1603	2	2	2	2
Carbon Black Dispersion	ASTM D5596	Note (1)	Note (1)	Note (1)	Note (1)
Oxidative Induction Time, Minutes	ASTM D 3895 200° C, O ₂ , 1 atm	>100	>100	>100	>100

Note 1: 9 of 10 views shall be category 1 or 2. No more than 1 view from category 3.

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