

LLDPE

2000B, 3000B & 4000B

Properties	Test Method	LLDPE 2000B		LLDPE 3000B		LLDPE 4000B	
		Min. Roll Averages	Typical Roll	Min. Roll Averages	Typical Roll	Min. Roll Averages	Typical Roll
Thickness mils (mm)	ASTIVI D 5199	20.0 (0.50)	21.0 (0.53)	30.0 (0.75)	31.2 (0.78)	40.0 (1.00)	41.5 (1.04)
Density g/cm ₃	ASTM D792 or ASTM D1505	0.920		0.920		0.920	
Tensile Strength lbf/in. width (N/mm width)	ASTM D638/D6693 1. Tensile Strength at Break 2. % Elongation at Break	76(13) 800	104(18) 875	114(20) 800	144(24) 875	152(27) 800	185(32) 875
Hydrostatic Resistance psi (kPa)	ASTM D751	118 (814)	122 (841)	175 (1206)	180 (1241)	230 (1586)	250 (1724)
Puncture Resistance lbf (N)	ASTM D4833	30 (130)	44 (195)	45 (200)	60 (270)	60 (270)	75 (334)
Tear Resistance lbf (N)	ASTM D1004	11 (49)	14 (62)	16 (71)	20 (89)	22 (98)	27 (120)
Volatile Loss Method A	ASTM 1203		<11%		<11%		<11%
Resistance to Soil Burial (% change maximum in original value)	ASTM D3083 1. Tensile Strength at Yield 2. Tensile Strength at Break 3. Elongation at Yield 4. Elongation at Break 5. Modulus of Elasticity		±1 0%		±1 0%		±1 0%
Low Temp, Impact Failure Temp F (C)	ASTM D746		< -94 (< -70)		< -94 (< -70)		< -94 (< -70)
Dimensional Stability % Change	ASTM D1204		< 2		< 2		< 2
Environmental Stress Crack Resistance Hours to failure	ASTM D5397 Appendix A		> 400		> 400		> 400
Carbon Black %	ASTM D 1 603 or D421 8	2.0	2.5	2.0	2.5	2.0	2.5
Perms grains/firrin. Hg (grams/m ² day/mm Hg)	ASTM E96 Method A 730 F, 50% RH		0.045 (0.030)		0.029 (0.019)		0.099 (0.014)
FACTORY SEAM REQUIREMENTS							
Bonded Seam Strength lbf/in. width (N/cm width)	ASTM D4545 MoV	40 (70)	45 (79)	60 (105)	68 (119)	75 (131)	80 (140)
Seam Peel Adhesion lbf/in. width (N/cm width)	ASTM D4545 Mod.*	30 (53)	36 (63)	45 (79)	53 (93)	60 (105)	69 (121)

Nominal Weight /Thousand Square Feet: LLDPE 2000B - 105 lbs., LLDPE 3000B - 157 lbs., LLDPE 4000B - 210 lbs.
GeoCHEM, Inc. performs seam testing at 12" per minute.

LLDPE 3000B meets or exceeds ASTM E-1745, Class "A" standard for water vapor retarders used in contact with soil or granular fill under concrete slabs.

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