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## *Typical Physical Property Values of our Chemical Resistant 40mil Polyethylene Breakout Barrier Material*

Properties	Test Method	Minimum Roll Averages	Typical Roll Averages
Thickness mils (mm)	ASTM D 1583	37 (0.94)	40 (1.02)
Density lb/ft <sup>3</sup>	ASTM D792 or ASTM D1505		57.7 (.925)
Minimum Tensile lb/in. width 84 (147) (N/cm width)	ASTM D638 1. Tensile strength at yield 2. % elongation at yield 3. Tensile strength at break 4. % elongation at break 5. Modulus @100% elongation	80 (140) 13 175 (314) 650	84 (147) 13 175 (314) 700 68 (119)
Hydrostatic Resistance psi (kPa)	ASTM D751	230 (1586)	250 (1724)
Puncture Resistance lbf (N)	FTMS 101 C - Method 2065	61 (271)	65 (289)
Tear Resistance lbf (N)	ASTM D1004	24 (107)	26 (116)
Volatile Loss - Method A	AASTM 1203		< 1%
Resistance to Soil Burial (% change maximum in original value)	ASTM G22 1. Tensile strength at yield 2. Tensile strength at break 3. Elongation at yield 4. Elongation at break 5. Modulus of elasticity		- 4%
Low Temp, Impact Failure Temp F (C)	ASTM D746		< .70 (< .94)
Dimensional Stability & Change	ASTM D1204		< 2
Environmental Stress Crack Resistance Hours to Failure	ASTM D5397 Method A		> 400
Carbon Black %	ASTM D1803	2.5	2.75
WVTR gH <sub>2</sub> O/100 in <sup>2</sup> /24 hrs (gH <sub>2</sub> O/m <sup>2</sup> /24 hrs)	ASTM E96 Method A 73o F, 50% RH		.016 (.018)
Perms grains/ft <sup>2</sup> /hr/in.Hg (grams/m <sup>2</sup> /day/mm Hg)	ASTM E96 Method A 73o F, 50% RH		.021 (.026)
Factory Seam Requirements			
Bonded Seam Strength lbf/in. width (N/cm width)	ASTM D4437	72 (126)	80 (140)
Seam Peel Adhesion lbf/in. width (N/cm width)	ASTM D4437	56 (98)	62 (109)

*Nominal Weight/Thousand Square Feet: Model #MBE40M (Miller Breakout Barrier) - 200 lbs*

**Note:** To the best of our knowledge, these are typical property values and are intended as guides only, not as specification limits. Miller Environmental Products, Inc. makes no warranties as to the fitness for a specific use or merchantability of products referred to, no guarantee of satisfactory results from reliance upon contained information or recommendations and disclaims all liability for resulting loss or damage.

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*Septic Tank Liners • Breakout Barrier Rolls • Custom Concrete Vault and Tank Liners • Secondary Containment Liner System*