

Test Method

Polyshield 200

Polyshield 300

Polyshield 400

PROPERTIES

		Minimum Roll Avgs.	Typical Roll Avgs.	Minimum Roll Avgs.	Typical Roll Avgs.	Minimum Roll Avgs.	Typical Roll Avgs.
Thickness nls minimum/mm	ASTM D 1593	18 mils (0.457 mm)	20 mils (0.508 mm)	28 mils (0.711 mm)	30 mils (0.762 mm)	37 mils (0.940 mm)	40 mils (1.016 mm)
Specific Gravity, g/cm³	ASTM D 792		.91/g/cm ³ .94/g/cm ³		.91/g/cm ³ .94/g/cm ³		.91/g/cm ³ .94/g/cm ³
Carbon Black Content, %	ASTM D 1603	2.5	3	2.5	3	2.5	3
Minimum Tensile Properties (each direction)	ASTM D 638						
1. Tensile Strength Yield		28 lbf/in. width (49N/cm width)	32 lbf/in. width (56N/cm width)	48 lbf/in. width (84N/cm width)	50 lbf/in. width (88N/cm width)	54 lbf/in. width (95N/cm width)	64 lbf/in. width (112N/cm width)
2. Tensile Strength at Break		80 lbf/in. width (140N/cm width)	100 lbf/in. width (175N/cm width)	128 lbf/in. width (224N/cm width)	140 lbf/in. width (245N/cm width)	190 lbf/in. width (333N/cm width)	200 lbf/in. width (350N/cm width)
3. Elongation at Yield		10%	13%	15%	20%	12%	15%
4. Elongation at Break		800%	900%	800%	900%	900%	1000%
5. Modulus (force) @ 100% Elongation			28 lbf/in. width (49N/cm width)		44 lbf/in. width (77N/cm width)		60 lbf/in. width (105N/cm width)
Tear Resistance	ASTM D 1004	10 lbf. (44N)	12 lbf. (53N)	17 lbf. (76N)	20 lbf. (89N)	22 lbf. (98N)	25 lbf. (111N)
Low Temperature	ASTM D 746 Per NSF 54		-60° C		-60° C		-60° C
Dimensional Stability (each direction, & change, maximum)	ASTM D 1204		<1		<1		<1
Volatile Loss (& loss maximum)	ASTM D 1203 Method A		<1%		<1%		<1%
Resistance to Soil Burial (% change maximum in original value)	ASTM G 22						
1. Tensile Strength Yield			-10		-10		-10
2. Tensile Strength at Break			-10		-10		-10
3. Elongation at Yield			-10		-10		-10
4. Elongation at Break			-10		-10		-10
5. Modulus of Elasticity			-10		-10		-10
ESCR Method A Hours to failure	ASTM D 1693		>300		>300		>300
Hydrostatic Resistance	ASTM D 751	90 psi (621 kPa)	92 psi (634 kPa)	140 psi (965 kPa)	150 psi (1034 kPa)	170 psi (1172 N)	180 psi (1241 N)
Perm Rating	ASTM E96 73°F, 50% R.H.		.0156 Grains/ Ft. ² /hr./in. Hg (.00043g/m ² / hr/mmHg)		.0122 Grains/ Ft. ² /hr./in. Hg (.00034g/m ² / hr/mmHg)		.0134 Grains/ Ft. ² /hr./in. Hg (.00037g/m ² / hr/mmHg)
WVTR	ASTM E96 73°F, 50% R.H.		.0069g/100 in. ² /24 hrs. (.0045g/m ² /hr)		.0054g/100 in. ² /24 hrs. (.0035g/m ² /hr)		.0060g/100 in. ² /24 hrs. (.0039g/m ² /hr)
Puncture Resistance	FTMS 101C Method 2065	30 lbf. (133N)	37 lbf. (165N)	42 lbf. (187N)	50 lbf. (222N)	60 lbf. (267N)	65 lbf. (289N)

FACTORY SEAM REQUIREMENTS

Bonded Seam Strength (factory seam, breaking factor)	ASTM D 4545	31 lbf/in. width (54 N/cm width)	38 lbf/in. width (67 N/cm width)	41 lbf/in. width (72 N/cm width)	55 lbf/in. width (96 N/cm width)	56 lbf/in. width (98 N/cm width)	80 lbf/in. width (140 N/cm width)
Peel Adhesion (minimum)	ASTM D 4545	25 lbf/in. width (46 N/cm width)	30 lbf/in. width (53 N/cm width)	39 lbf/in. width (68 N/cm width)	50 lbf/in. width (88 N/cm width)	55 lbf/in. width (96 N/cm width)	61 lbf/in. width (107 N/cm width)
Dead Load Room Temperature 73° F 50% Bonded Seam Load			Pass		Pass		Pass

Film Tear Bond Metric in parenthesis

Nominal Weight/Thousand Square Feet: PS 200 - 100 Lbs., PS 300 - 150 Lbs., PS 400 - 200 Lbs.

Note: To the best of our knowledge, these are minimum and typical roll averages and are intended as guides only, not as specification limits.

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