

PROPERTY	TEST METHOD	FREQUENCY ⁽¹⁾	UNIT Imperial	Solmax 420-1000	Solmax 430-1000	Solmax 440-1000	Solmax 460-1000	Solmax 480-1000	Solmax 500-1000	Solmax 520-1000
SPECIFICATIONS										
Thickness (min. avg.)	ASTM D-5199	Every roll	mils	20.0	30.0	40.0	60.0	80.0	100.0	120.0
Thickness (min.)	ASTM D-5199	Every roll	mils	18.0	27.0	36.0	54.0	72.0	90.0	108.0
Resin Density	ASTM D-1505	1/Batch	g/cc	> 0.932	> 0.932	> 0.932	> 0.932	> 0.932	> 0.932	> 0.932
Melt Index - 190/2.16 (max.)	ASTM D-1238	1/Batch	g/10 min	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Sheet Density (8)	ASTM D-1505	Every 2 rolls	g/cc	≥ 0.940	≥ 0.940	≥ 0.940	≥ 0.940	≥ 0.940	≥ 0.940	≥ 0.940
Carbon Black Content (9)	ASTM D-4218	Every 2 rolls	%	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0
Carbon Black Dispersion	ASTM D-5596	Every 6 rolls	Category	Cat. 1 & Cat. 2	Cat. 1 & Cat. 2	Cat. 1 & Cat. 2	Cat. 1 & Cat. 2	Cat. 1 & Cat. 2	Cat. 1 & Cat. 2	Cat. 1 & Cat. 2
OIT - standard (avg.)	ASTM D-3895	1/Batch	min	100	100	100	100	100	100	100
Tensile Properties (min. avg) (2)	ASTM D-6693	Every 2 rolls								
Strength at Yield			ppi	40	66	84	130	177	210	252
Elongation at Yield			%	12	13	13	13	13	12	12
Strength at Break			ppi	76	122	162	243	326	380	456
Elongation at Break			%	600	700	700	700	700	700	700
Tear Resistance (min. avg.)	ASTM D-1004	Every 6 rolls	lbf	13	21	28	42	57	70	84
Puncture Resistance (min. avg.)	ASTM D-4833	Every 6 rolls	lbf	36	60	80	122	155	180	216
Dimensional Stability	ASTM D-1204	Every 6 rolls	%	± 2	± 2	± 2	± 2	± 2	± 2	± 2
Stress Crack Resistance (SP-NCTL)	ASTM D-5397	1/Batch	hr	400	400	400	400	400	400	400
Oven Aging - % retained after 90 days	ASTM D-5721	Per formulation								
HP OIT (min. avg.)	ASTM D-5885		%	80	80	80	80	80	80	80
UV Resistance - % retained after 1600 hr	GRI-GM-11	Per formulation								
HP-OIT (min. avg.)	ASTM D-5885		%	50	50	50	50	50	50	50
SUPPLY SPECIFICATIONS (Roll dimensions may vary ±1%)										
Roll Dimension - Width	-		ft	22.3	22.3	22.3	22.3	22.3	22.3	22.3
Roll Dimension - Length	-		ft	1,400	1,000	780	520	400	320	265
Area (Surface/Roll)	-		sf	31,220	20,494	17,394	11,596	8,920	7,136	5,910

NOTES

1. Testing frequency based on standard roll dimensions and one batch is approximately 180,000 lbs (or one railcar).
2. Machine Direction (MD) and Cross Machine Direction (XMD or TD) average values should be on the basis of 5 specimens each direction.
8. Correlation table is available for ASTM D792 vs ASTM D1505. Both methods give the same results.
9. Correlation table is available for ASTM D1603 vs ASTM D4218. Both methods give the same results.

* All values are nominal test results, except when specified as minimum or maximum.

* The information contained herein is provided for reference purposes only and is not intended as a warranty of guarantee. Final determination of suitability for use contemplated is the sole responsibility of the user. SOLMAX assumes no liability in connection with the use of this information.

PROPERTY	TEST METHOD	FREQUENCY ⁽¹⁾	UNIT Imperial	Solmax 430T-1000	Solmax 440T-1000	Solmax 460T-1000	Solmax 480T-1000	Solmax 500T-1000	Solmax 520T-1000
SPECIFICATIONS									
Thickness (min. avg.)	ASTM D-5994	Every roll	mils	29.0	38.0	57.0	76.0	95.0	114.0
Lowest individual for 8 out of 10 values			mils	27.0	36.0	54.0	72.0	90.0	108.0
Lowest individual for 10 out of 10 values			mils	26.0	34.0	51.0	68.0	85.0	102.0
Asperity Height (min. avg.) (3)	ASTM D-7466	Every roll	mils	10	15	15	15	15	15
Resin Density	ASTM D-1505	1/Batch	g/cc	> 0.932	> 0.932	> 0.932	> 0.932	> 0.932	> 0.932
Melt Index - 190/2.16 (max.)	ASTM D-1238	1/Batch	g/10 min	1.0	1.0	1.0	1.0	1.0	1.0
Sheet Density (8)	ASTM D-1505	Every 2 rolls	g/cc	≥ 0.940	≥ 0.940	≥ 0.940	≥ 0.940	≥ 0.940	≥ 0.940
Carbon Black Content (9)	ASTM D-4218	Every 2 rolls	%	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0
Carbon Black Dispersion	ASTM D-5596	Every 6 rolls	Category	Cat. 1 & Cat. 2	Cat. 1 & Cat. 2	Cat. 1 & Cat. 2	Cat. 1 & Cat. 2	Cat. 1 & Cat. 2	Cat. 1 / Cat. 2
OIT - standard (avg.)	ASTM D-3895	1/Batch	min	100	100	100	100	100	100
Tensile Properties (min. avg.) (2)	ASTM D-6693	Every 2 rolls							
Strength at Yield			ppi	66	88	132	176	210	252
Elongation at Yield			%	12	12	13	13	12	13
Strength at Break			ppi	66	88	132	167	150	252
Elongation at Break			%	150	150	150	150	100	150
Tear Resistance (min. avg.)	ASTM D-1004	Every 6 rolls	lbf	23	30	45	60	70	84
Puncture Resistance (min. avg.)	ASTM D-4833	Every 6 rolls	lbf	60	90	120	150	150	180
Dimensional Stability	ASTM D-1204	Every 6 rolls	%	± 2	± 2	± 2	± 2	± 2	± 2
Stress Crack Resistance (SP-NCTL)	ASTM D-5397	1/Batch	hr	400	400	400	400	400	400
Oven Aging - % retained after 90 days	ASTM D-5721	Per formulation							
HP OIT (min. avg.)	ASTM D-5885		%	80	80	80	80	80	80
UV Resistance - % retained after 1600 hr	GRI-GM-11	Per formulation							
HP-OIT (min. avg.)	ASTM D-5885		%	50	50	50	50	50	50
SUPPLY SPECIFICATIONS (Roll dimensions may vary ±1%)									
Roll Dimension - Width	-		ft	22.3	22.3	22.3	22.0	22.0	22.0
Roll Dimension - Length	-		ft	1,000	780	540	420	320	265
Area (Surface/Roll)	-		sf	22,300	17,394	12,042	9,240	7,040	5,830

NOTES

1. Testing frequency based on standard roll dimensions and one batch is approximately 180,000 lbs (or one railcar).
2. Machine Direction (MD) and Cross Machine Direction (XMD or TD) average values should be on the basis of 5 specimens each direction.
3. Of 10 readings; 8 out of 10 must be >7 mils (0.18 mm), and lowest individual reading must be >5 mils (0.13 mm). ASTM D7466 is identical to GRI-GM12.
8. Correlation table is available for ASTM D792 vs ASTM D1505. Both methods give the same results.
9. Correlation table is available for ASTM D1603 vs ASTM D4218. Both methods give the same results.

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PROPERTY	TEST METHOD	FREQUENCY ⁽¹⁾	UNIT Imperial	Solmax 430ST-1000	Solmax 440ST-1000	Solmax 460ST-1000	Solmax 480ST-1000	Solmax 500ST-1000	Solmax 520ST-1000
SPECIFICATIONS									
Thickness (min. avg.)	ASTM D-5994	Every roll	mils	28.5	38.0	57.0	76.0	95.0	114.0
Lowest individual for 8 out of 10 values			mils	27.0	36.0	54.0	72.0	90.0	108.0
Lowest individual for 10 out of 10 values			mils	26.0	34.0	51.0	68.0	85.0	102.0
Asperity Height (min. avg.) (3)	ASTM D-7466	Every roll	mils	10	15	15	15	15	15
Resin Density	ASTM D-1505	1/Batch	g/cc	> 0.932	> 0.932	> 0.932	> 0.932	> 0.932	> 0.932
Melt Index - 190/2.16 (max.)	ASTM D-1238	1/Batch	g/10 min	1.0	1.0	1.0	1.0	1.0	1.0
Sheet Density (8)	ASTM D-1505	Every 2 rolls	g/cc	≥ 0.940	≥ 0.940	≥ 0.940	≥ 0.940	≥ 0.940	≥ 0.940
Carbon Black Content (9)	ASTM D-4218	Every 2 rolls	%	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0
Carbon Black Dispersion	ASTM D-5596	Every 6 rolls	Category	Cat. 1 & Cat. 2	Cat. 1 & Cat. 2	Cat. 1 & Cat. 2	Cat. 1 & Cat. 2	Cat. 1 & Cat. 2	Cat. 1 / Cat. 2
OIT - standard (avg.)	ASTM D-3895	1/Batch	min	100	100	100	100	100	100
Tensile Properties (min. avg.) (2)	ASTM D-6693	Every 2 rolls							
Strength at Yield			ppi	63	88	132	176	210	252
Elongation at Yield			%	12	13	13	13	12	13
Strength at Break			ppi	46	88	132	167	150	252
Elongation at Break			%	100	150	150	150	100	150
Tear Resistance (min. avg.)	ASTM D-1004	Every 6 rolls	lbf	21	30	45	60	70	84
Puncture Resistance (min. avg.)	ASTM D-4833	Every 6 rolls	lbf	45	90	120	150	150	180
Dimensional Stability	ASTM D-1204	Every 6 rolls	%	± 2	± 2	± 2	± 2	± 2	± 2
Stress Crack Resistance (SP-NCTL)	ASTM D-5397	1/Batch	hr	400	400	400	400	400	400
Oven Aging - % retained after 90 days	ASTM D-5721	Per formulation							
HP OIT (min. avg.)	ASTM D-5885		%	80	80	80	80	80	80
UV Resistance - % retained after 1600 hr	GRI-GM-11	Per formulation							
HP-OIT (min. avg.)	ASTM D-5885		%	50	50	50	50	50	50
SUPPLY SPECIFICATIONS (Roll dimensions may vary ±1%)									
Roll Dimension - Width	-		ft	22.3	22.3	22.3	22.0	22.0	22.0
Roll Dimension - Length	-		ft	1,000	780	560	440	320	265
Area (Surface/Roll)	-		sf	22,300	17,394	12,488	9,680	7,040	5,830

NOTES

1. Testing frequency based on standard roll dimensions and one batch is approximately 180,000 lbs (or one railcar).
2. Machine Direction (MD) and Cross Machine Direction (XMD or TD) average values should be on the basis of 5 specimens each direction.
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