

Solmax International Inc., 2801 Boul. Marie-Victorin, Varennes, Qc, Canada, J3X 1P7  
Tel.: (450) 929-1234 Fax: (450) 929-2550 www.solmax.com

PROPERTY	TEST METHOD	FREQUENCY <sup>(1)</sup>	UNIT Metric	Solmax 440-3100	Solmax 460-3100	Solmax 480-3100	Solmax 500-3100
<b>SPECIFICATIONS</b>							
Thickness (min. avg.)	ASTM D-5199	Every roll	mm	1.00	1.50	2.00	2.50
Thickness (min.)	ASTM D-5199	Every roll	mm	0.90	1.35	1.80	2.25
Resin Density	ASTM D-1505	1/Batch	g/cc	> 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
Sheet Density (8)	ASTM D-1505	Every 2 rolls	g/cc	≥ 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
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
OIT - standard (avg.)	ASTM D-3895	1/Batch	min	160	160	160	160
HPOIT - High Pressure (avg)	ASTM D-5885	Per formulation	min	800	800	800	800
Tensile Properties (min. avg) (2)	ASTM D-6693	Every 2 rolls					
Strength at Yield			kN/m	15	23	31	37
Elongation at Yield			%	13	13	13	13
Strength at Break			kN/m	27	43	57	71
Elongation at Break			%	750	750	750	750
Tear Resistance (min. avg.)	ASTM D-1004	Every 6 rolls	N	125	187	257	324
Puncture Resistance (min. avg.)	ASTM D-4833	Every 6 rolls	N	378	556	711	867
Dimensional Stability	ASTM D-1204	Certification	%	± 2	± 2	± 2	± 2
Stress Crack Resistance (SP-NCTL) (avg.)	ASTM D-5397	1/Batch	hr	1000	1000	1000	1000
Multi-Axial Tensile (min. avg.)	ASTM D-5617	Per formulation	%	30	30	30	30
Oven Aging - % retained after 90 days	ASTM D-5721	Per formulation					
HP OIT (min. avg.)	ASTM D-5885		%	80	80	80	80
UV Resistance - % retained after 1600 hr	GRI-GM-11	Per formulation					
HP-OIT (min. avg.)	ASTM D-5885		%	80	80	80	80
<b>SUPPLY SPECIFICATIONS</b> (Roll dimensions may vary ±1%)							
Roll Dimension - Width	-		m	6.80	6.80	6.80	6.80
Roll Dimension - Length	-		m	237.7	158.5	121.9	97.5
Area (Surface/Roll)	-		m <sup>2</sup>	1616.4	1077.8	828.9	663.0



# TECHNICAL DATA SHEET

## Solmax HDPE Premium Smooth - Metric Values

Solmax International Inc., 2801 Boul. Marie-Victorin, Varennes, Qc, Canada, J3X 1P7  
Tel.: (450) 929-1234 Fax: (450) 929-2550 www.solmax.com

PROPERTY	TEST METHOD	FREQUENCY <sup>(1)</sup>	UNIT Metric	Solmax 440-3100	Solmax 460-3100	Solmax 480-3100	Solmax 500-3100
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### 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.

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PROPERTY	TEST METHOD	FREQUENCY <sup>(1)</sup>	UNIT Metric	Solmax 440ST-3100	Solmax 460ST-3100	Solmax 480ST-3100	Solmax 500ST-3100
<b>SPECIFICATIONS</b>							
Thickness (min. avg.)	ASTM D-5994	Every roll	mm	1.00	1.50	2.00	2.50
Thickness (min.)	ASTM D-5994	Every roll	mm	0.90	1.35	1.80	2.25
Asperity Height (min. avg.) (3)	ASTM D-7466	Every roll	mm	0.45	0.45	0.45	0.45
Resin Density	ASTM D-1505	1/Batch	g/cc	> 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
Sheet Density (8)	ASTM D-1505	Every 2 rolls	g/cc	≥ 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
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
OIT - standard (avg.)	ASTM D-3895	1/Batch	min	160	160	160	160
HPOIT - High Pressure (avg)	ASTM D-5885	Per formulation	min	800	800	800	800
Tensile Properties (min. avg) (2)	ASTM D-6693	Every 2 rolls					
Strength at Yield			kN/m	15	23	31	39
Elongation at Yield			%	13	13	13	13
Strength at Break			kN/m	13	20	27	40
Elongation at Break			%	200	200	200	200
Tear Resistance (min. avg.)	ASTM D-1004	Every 6 rolls	N	142	200	266	333
Puncture Resistance (min. avg.)	ASTM D-4833	Every 6 rolls	N	422	578	711	845.
Dimensional Stability	ASTM D-1204	Certification	%	± 2	± 2	± 2	± 2
Stress Crack Resistance (SP-NCTL) (avg.)	ASTM D-5397	1/Batch	hr	1000	1000	1000	1000
Multi-Axial Tensile (min. avg.)	ASTM D-5617	Per formulation	%	15	15	15	15
Oven Aging - % retained after 90 days	ASTM D-5721	Per formulation					
HP OIT (min. avg.)	ASTM D-5885		%	80	80	80	80
UV Resistance - % retained after 1600 hr	GRI-GM-11	Per formulation					
HP-OIT (min. avg.)	ASTM D-5885		%	80	80	80	80
<b>SUPPLY SPECIFICATIONS</b> (Roll dimensions may vary ±1%)							
Roll Dimension - Width	-		m	6.80	6.80	6.80	6.80
Roll Dimension - Length	-		m	237.7	158.5	121.9	97.5
Area (Surface/Roll)	-		m <sup>2</sup>	1616.4	1077.8	828.9	663



# TECHNICAL DATA SHEET

## Solmax HDPE Premium Single-Sided Textured - Metric Values

Solmax International Inc., 2801 Boul. Marie-Victorin, Varennes, Qc, Canada, J3X 1P7  
Tel.: (450) 929-1234 Fax: (450) 929-2550 www.solmax.com

PROPERTY	TEST METHOD	FREQUENCY <sup>(1)</sup>	UNIT Metric	Solmax 440ST-3100	Solmax 460ST-3100	Solmax 480ST-3100	Solmax 500ST-3100
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### 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. 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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<b>SPECIFICATIONS</b>							
Thickness (min. avg.)	ASTM D-5994	Every roll	mm	1.00	1.50	2.00	2.50
Thickness (min.)	ASTM D-5994	Every roll	mm	0.90	1.35	1.80	2.25
Asperity Height (min. avg.) (3)	ASTM D-7466	Every roll	mm	0.45	0.45	0.45	0.45
Resin Density	ASTM D-1505	1/Batch	g/cc	> 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
Sheet Density (8)	ASTM D-1505	Every 2 rolls	g/cc	≥ 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
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
OIT - standard (avg.)	ASTM D-3895	1/Batch	min	160	160	160	160
HPOIT - High Pressure (avg)	ASTM D-5885	Per formulation	min	800	800	800	800
Tensile Properties (min. avg) (2)	ASTM D-6693	Every 2 rolls					
Strength at Yield			kN/m	15	23	31	39
Elongation at Yield			%	13	13	13	13
Strength at Break			kN/m	13	20	27	40
Elongation at Break			%	200	200	200	200
Tear Resistance (min. avg.)	ASTM D-1004	Every 6 rolls	N	142.	200	266	333
Puncture Resistance (min. avg.)	ASTM D-4833	Every 6 rolls	N	422.	578	711	845
Dimensional Stability	ASTM D-1204	Certification	%	± 2	± 2	± 2	± 2
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Multi-Axial Tensile (min. avg.)	ASTM D-5617	Per formulation	%	15	15	15	15
Oven Aging - % retained after 90 days	ASTM D-5721	Per formulation					
HP OIT (min. avg.)	ASTM D-5885		%	80	80	80	80
UV Resistance - % retained after 1600 hr	GRI-GM-11	Per formulation					
HP-OIT (min. avg.)	ASTM D-5885		%	80	80	80	80
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