



SML Films Ltd.



SM 112 M

Doc No.-F/PRD/02, Rev.-01, Dt.-01.06.2016

DESCRIPTION : SM 112 M, **Isotropic film** is a co-extruded bi-axially oriented polyester film vacuum aluminium metallised on plain side and other side corona treatment.

APPLICATION : Suitable for flexible packaging application.

SALIENT FEATURES :

- Excellent isotropic characteristics.
- Good Metal Bond Strength.
- Excellent Machineability.
- Good Water Vapour and Gas Barrier properties.

TECHNICAL DATA SHEET (SM 112 M)

Properties	Test Method	Unit	SM 112 M						
PHYSICAL									
Thickness	ASTM D-374	Micron	8	10	12	15	19	23	
Thickness Variation	SMLTM	%	±5	±5	±5	±5	±5	±5	
Average Grammage	SMLTM	g/m ²	11.2	14.0	16.8	21.0	26.6	32.2	
Density	ASTM D-1505	g/cc	1.4	1.4	1.4	1.4	1.4	1.4	
Metal Bond Strength	SMLTM	g/25mm	100	100	100	100	100	100	
Width	—	mm	510~2450	510~2450	510~2450	510~2450	510~2450	510~2450	
Length	—	mtr	Up to 48000	Up to 48000	Up to 48000	Up to 36000	Up to 24000	Up to 21000	
OPTICAL									
Optical Density	SMLTM	—	2.2 ± 5%	2.2 ± 5%	2.2 ± 5%	2.2 ± 5%	2.2 ± 5%	2.2 ± 5%	
MECHANICAL									
Tensile Strength (Min)	MD	ASTM D-882	Kg/cm ²	2200	2200	2200	2200	2100	2100
	TD			2400	2400	2400	2400	2300	2300
Elongation (Min)	MD	ASTM D-882	%	100	100	100	100	100	100
	TD			90	90	90	90	90	90
Coefficient of friction (Base Film), (Max)	Static	ASTM D-1894	—	0.50	0.50	0.50	0.50	0.50	0.50
	Kinetic			0.45	0.45	0.45	0.45	0.45	0.45
ISOTROPIC									
Ratio of T.S. @ +45° & -45°	SMLTM	—	0.66 to 1.50	0.66 to 1.50	0.66 to 1.50	0.66 to 1.50	0.66 to 1.50	0.66 to 1.50	
Ratio of Elongation @ +45° & -45°	SMLTM	—	0.50 to 2.00	0.50 to 2.00	0.50 to 2.00	0.50 to 2.00	0.50 to 2.00	0.50 to 2.00	
THERMAL									
Shrinkage (Max) (150°C /30 Min)	MD	ASTM D-1204	%	2.4	2.4	2.4	2.4	2.4	2.4
	TD			0.4	0.4	0.4	0.4	0.4	0.4
SURFACE									
Wetting Tension	Metal Side	ASTM D-2578	Dyne/cm	54	54	54	54	54	54
	Corona Side			52-58	52-58	52-58	52-58	52-58	52-58
BARRIER									
WVTR (38°C & 90% RH) (Max)	ASTM F-1249	g/m ² /day	1.2	1.0	1.0	1.0	1.0	1.0	
OTR (23°C & 0% RH) (Max)	ASTM D-3985	cc/m ² /day	1.4	1.2	1.2	1.2	1.2	1.2	

SMLTM : SML TEST METHOD, **MD :** MACHINE DIRECTION , **TD :** TRANSVERSE DIRECTION

- Notes:**
- 1- Optical Density up to 2.8 is available on request.
 - 2- Tolerance in width +3mm and -0mm.
 - 3- The above properties are indicative only. Film can be produced to suit customer's requirements.

