



SML Films Ltd.



## SM 210 N

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

**DESCRIPTION** : SM 210 N, **Stamping Foil grade** film is a co-extruded transparent and untreated bi-axially oriented plain polyester film.

**APPLICATION** : Suitable for Stamping foil, Transfer Metallizing, Tension coating, Printing & Lamination application.

**SALIENT FEATURES :**

- Good clarity and transparency.
- Good adhesion to inks & lacquers.
- Excellent mechanical & thermal properties.

## TECHNICAL DATA SHEET ( SM 210 N )

Properties		Test Method	Unit	SM 210 N			
<b>PHYSICAL</b>							
Thickness		ASTM D-374	Micron	<b>12</b>	<b>15</b>	<b>23</b>	<b>36</b>
Thickness Variation		SMLTM	%	±5	±5	±5	±5
Average Grammage		SMLTM	g/m <sup>2</sup>	16.8	21.0	32.2	50.4
Density		ASTM D-1505	g/cc	1.4	1.4	1.4	1.4
Width		–	mm	500-3100	500-3100	500-3100	500-3100
Length		–	mtr	Up to 60000	Up to 36000	Up to 21000	Up to 18000
Joints		–	%	80% (NIL)			
				20% (1 Joint)			
<b>OPTICAL</b>							
Haze		ASTM D-1003	%	2.0~3.0	2.0~3.0	2.0~3.0	2.0~3.0
Transmittance		ASTM D-1003	%	88.0~89.0	88.0~89.0	88.0~89.0	88.0~89.0
<b>MECHANICAL</b>							
Tensile Strength ( Min )	MD	ASTM D-882	Kg/cm <sup>2</sup>	2500	2500	2400	2300
	TD			2400	2400	2300	2200
Elongation ( Min )	MD	ASTM D-882	%	100	100	110	120
	TD			100	100	100	110
Coefficient of friction (Max )	Static	ASTM D-1894	–	0.50	0.50	0.50	0.50
	Kinetic			0.45	0.45	0.45	0.45
<b>THERMAL</b>							
Shrinkage ( Max ) ( 190°C /05 Min )	MD	ASTM D-1204	%	3.2	3.2	3.2	3.2
	TD			-0.4	-0.4	-0.2	-0.2
<b>SURFACE</b>							
Wetting Tension	Outside	ASTM D-2578	Dyne/cm	44-46	44-46	44-46	44-46
	Inside			44-46	44-46	44-46	44-46

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

**Notes:**

- 1- Tolerance in width +3mm and -0mm.
- 2- The above properties are indicative only. Film can be produced to suit customer's requirements.

