



SML Films Ltd.



SM 500 N

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DESCRIPTION : SM 500 N, Grade film is a co-extruded untreated bi-axially oriented **hazy** polyester film.

APPLICATION : Suitable for electrical motor winding insulation, capacitors, electric circuits & other electrical applications.

SALIENT FEATURES :

- High dielectric strength and exceptional temperature durability.
- Dimensionally stable at high operating temp.
- Excellent mechanical & thermal properties.
- High electrical resistance.

TECHNICAL DATA SHEET (SM 500 N)

Properties		Test Method	Unit	SM 500 N					
PHYSICAL									
Thickness		ASTM D-374	Micron	23	36	50	75	100	125
Thickness Variation		SMLTM	%	±5	±5	±5	±5	±5	±5
Average Grammage		SMLTM	g/m ²	32.2	50.4	70.0	105.0	140.0	175.0
Density		ASTM D-1505	g/cc	1.4	1.4	1.4	1.4	1.4	1.4
Width		-	mm	500-3100	500-3100	500-3100	500-3100	500-3100	500-3100
Length		-	mtr	Up to 21000	Up to 18000	Up to 18000	Up to 6500	Up to 6500	Up to 6000
Joins		-	%	80% (NIL) 20% (1 Joint)					
OPTICAL									
Haze		ASTM D-1003	%	4.0~5.0	5.0~6.0	6.0~7.0	7.0~8.0	7.0~8.0	7.0~8.0
Transmittance		ASTM D-1003	%	87.0~88.0	87.0~88.0	87.0~88.0	87.0~88.0	87.0~88.0	87.0~88.0
MECHANICAL									
Tensile Strength (Min)	MD	ASTM D-882	Kg/cm ²	2200	2100	2000	1800	1800	1700
	TD			2200	2100	1900	1800	1800	1700
Elongation (Min)	MD	ASTM D-882	%	100	120	120	130	130	130
	TD			100	110	120	130	130	130
Coefficient of friction (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
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	Outside	ASTM D-2578	Dyne/cm	44-46	44-46	44-46	44-46	44-46	44-46
	Inside			44-46	44-46	44-46	44-46	44-46	44-46
ELECTRICAL									
Break Down Voltage (Min)		ASTM D-149	KV	6.0	7.0	9.0	12.0	14.0	16.0
Surface resistivity		ASTM D-257	Ohm/sq	10 ¹²	10 ¹²	10 ¹²	10 ¹²	10 ¹²	10 ¹²
Volume resistivity		ASTM D-257	Ohm-cm	10 ¹⁶	10 ¹⁶	10 ¹⁶	10 ¹⁶	10 ¹⁶	10 ¹⁶

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.

