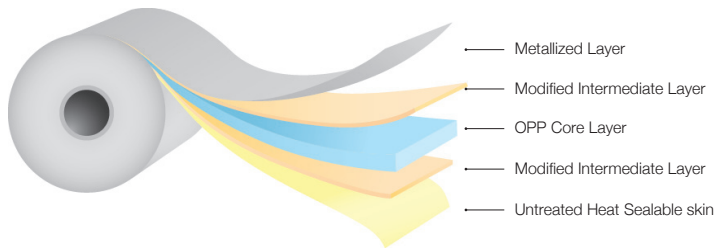


OPLAR SM grade is Sealable Metallized BOPP Film with one side heat sealable layer for use in general purpose applications (Application Code-A01). The film ensures good moisture and gas barrier properties. Due to its slip controlled broad seal surface this film performs well on all types of HFFS and VFFS machines.

## TYPICAL APPLICATIONS

- inner web in lamination
- Confectionary (chocolates, gums)
- Chips and snacks
- Ice-cream and frozen food



## PRODUCT FEATURES

- Excellent metal adhesion and treatment retention
- Excellent metal appearance
- Excellent stiffness and mechanical properties
- Very good seal integrity

Properties	Test method	Unit	Position	Product Code				
				SM15	SM18	SM20	SM25	SM30
Nominal Thickness	SRF Method	Micron	-	15	18	20	25	30
Grammage	ASTM D 1505	gm/m <sup>2</sup>	-	14	16	18	23	27
Yield	SRF Method	m <sup>2</sup> /kg	-	73	61	55	44	37
Density	SRF Method	g/cc	-	0.91	0.91	0.91	0.91	0.91
<b>MECHANICAL</b>								
Tensile Strength	ASTM D 882	Kg/cm <sup>2</sup>	MD	1300	1300	1300	1300	1300
			TD	2500	2500	2500	2500	2500
Elongation at Break		%	MD	190	190	190	190	190
		TD	60	60	60	60	60	
Elastic Modulus		%	MD	18000	18000	18000	18000	18000
		TD	29000	29000	29000	29000	29000	
<b>SURFACE</b>								
Treatment Level	ASTM D 2578	Dyne/cm	TI/TO	38	38	38	38	38
Coefficient of Friction (Max)	ASTM D 1894	Kinetic	UT/UT	0.45	0.45	0.45	0.45	0.45
<b>THERMAL</b>								
Shrinkage (Max)	SRF Method	%	MD	4.0	4.0	4.0	4.0	4.0
			TD	2.0	2.0	2.0	2.0	2.0
<b>SEALING</b>								
Heat Seal Temp. Range	SRF Method	°C	-	110-145				
Heat Seal Strength	SRF Method	gm/25mm	UT/UT	300	350	350	350	350
<b>OPTICAL, BARRIER &amp; METAL BOND STRENGTH</b>								
Optical Density	SRF Method	-	-	2.2	2.2	2.2	2.2	2.2
WVTR (Max)	ASTM E 96	gm/m <sup>2</sup> /day	-	<1.0	<1.0	<1.0	<1.0	<1.0
OTR (Min)	ASTM D 1434	cc/m <sup>2</sup> /day	-	100	100	100	100	100
Metal Adhesion	SRF Method	%	-	100	100	100	100	100

MD - Machine Direction, TD - Transverse Direction | TI - Treatment Inside, TO - Treatment Outside, UT - Untreated

Notes: 1) Corona treated side is available wound inside/outside of the roll - customer to specify accordingly; 2) Above properties can be modified to suit customer's requirement; 3) Unless otherwise specified, the values given above are nominal.

## DISCLAIMER

The information provided above is based on SRF FLEXI PAK conclusive tests, which are indicative only and provided as guidelines. Customers are solely responsible for the end use in all respects. Customers should verify the suitability of the film for its end use. SRF FLEXI PAK gives no warranty or accepts liability for any loss and fitness of the product for any specific purpose. SRF FLEXI PAK reserves the right to change the technical data sheet at any time for enhancing the quality of the product without prior information. **STORAGE CONDITIONS:** A storage condition between 22 to 30°C and RH 40-60% is recommended in order to minimize the deterioration of the film properties in general. It is advisable to turn out the inventory on FIFO basis. The film should be conditioned in the operating environment for at least 24 hours before processing.