



## SUPEX

## 2011 M

### Description

SUPEX 2011 M is a transparent, coextruded, biaxially oriented polypropylene (BOPP) film formulated with low COF and stable slip property. Both sides heat sealable and one side treated.

General purpose packaging film for use on HFFS and VFFS packaging machines where the strong seal and low COF is required for smooth and trouble-free running.

### Properties

- Excellent hot tack and heat seal strength
- Low and stable slip
- Excellent hot slip property
- High clarity and gloss
- Excellent adhesion to inks and adhesives
- Resistance to chemicals, greases and oils

## Technical Features

PROPERTIES	TEST METHOD	UNITS	2011 M										
			15	17	17,5	18	20	25	30	35	40	50	
THICKNESS	ASTM F2251	micron	15	17	17,5	18	20	25	30	35	40	50	
		Gauge	60	68	70	72	80	100	120	140	160	200	
YIELD	ASTM D4321	m <sup>2</sup> /kg	73,3	64,6	62,8	61,1	54,9	44,0	36,6	31,4	27,5	22,0	
		in <sup>2</sup> /Lbs	51.500	45.400	44.100	43.000	38.600	30.900	25.800	22.100	19.300	15.500	
UNIT WEIGHT	ASTM D4321	g/m <sup>2</sup>	13,7	15,5	15,9	16,4	18,2	22,8	27,3	31,8	36,4	45,5	
HAZE	ASTM D1003	%	1,7						2,0				
GLOSS (45 °)	ASTM D2457	%	96										
TENSILE STRENGTH AT BREAK	ASTM D882	MD	N/mm <sup>2</sup>	160									
			lb/in <sup>2</sup>	23.200									
		TD	N/mm <sup>2</sup>	280									
			lb/in <sup>2</sup>	40.600									
ELONGATION AT BREAK	ASTM D882	MD	185										
		TD	65										
THERMAL SHRINKAGE (120 °C, 5 min, air)	ASTM D1204	MD	3										
		TD	1										
COEFFICIENT OF FRICTION	ASTM D1894	Film/Film	0,20										
		Film/Metal	0,20										
SURFACE TENSION	ASTM D2578	Dyne/cm	Treated Side	38									
			Other Side	-									
HEATSEAL RANGE	ASTM F88	°C	105-145										
		°F	221-293										
HEATSEAL STRENGTH (120 °C, 1 MPa, 1 s)	ASTM F88	N/15mm	2,0										

### Regulatory Status

Our product complies with the applicable EC legislation on packaging involving direct contact with foods except metallized films. Full details are given on the Regulatory Compliance Certificate and can be found on our web site.

The information contained in this data sheet is true and accurate according to current state of our knowledge and intended to give general information on our products and their applications. Above values are to be considered as guidelines and not as product specifications. Since the actual conditions of use are beyond our control, users are advised to make their own tests at their specific conditions of laboratory and/or actual use. We suggest our customers to determine final suitability for their specific end uses.

Also be advised that information on this data sheet shall not be construed as an inducement or recommendation to use any process or to manufacture or use any product in conflict with existing, pending or future patents.

**For related spec sheet with tolerance values, please contact our sales departments**