



SUPEX

2011 ML

Description

SUPEX 2011 ML is a transparent, coextruded biaxially oriented polypropylene (BOPP) film with antifogging property. Both sides heat sealable. One side treated for printing.

A special antifogging (antimist) film for fresh fruit and vegetables packaging where high visibility in cold environment is needed. The film retains its transparency by spreading the condensed water droplets into a continuous and uniform water layer and the packaged foods stay clearly visible. It also protects the packed food against deterioration caused by droplets of water.

It is printable and heat sealable packaging film for use on HFFS, VFFS and bag making machines where the strong seals, excellent hot-tack and antifog properties are needed.

Please be informed that, as an industrial fact and practice, present antifog films are for medium humidity levels in the packages. If, related with the goods packed, the humidity content inside the package is high, standart antifog surface would not be good enough and certain macro and/or micro perforation should be applied.

Properties

- Excellent antifogging (antimist) property
- Broad seal range
- Excellent hot tack and heat seal strength
- Good hot slip
- Excellent dimensional stability
- High clarity and gloss
- Good moisture barrier
- Resistance to chemicals, greases and oils
- Excellent ink adhesion
- The film shelf life is 6 months

Technical Features

PROPERTIES	TEST METHOD	UNITS	2011 ML			
THICKNESS	ASTM F2251	micron	25	30	35	40
		Gauge	100	120	140	160
YIELD	ASTM D4321	m ² /kg	44	36,6	31,4	27,5
		in ² /Lbs	30.900	25.800	22.100	19.300
UNIT WEIGHT	ASTM D4321	g/m ²	22,8	27,3	31,9	36,4
HAZE	ASTM D1003	%	1,6		1,8	
GLOSS (45 °)	ASTM D2457	%	85			
TENSILE STRENGTH AT BREAK	ASTM D882	MD	N/mm ²	150		
			lb/in ²	21.800		
		TD	N/mm ²	270		
			lb/in ²	39.200		
ELONGATION AT BREAK	ASTM D882	MD	200			
		TD	65			
THERMAL SHRINKAGE (120 °C, 5 min, air)	ASTM D1204	MD	3			
		TD	1			
COEFFICIENT OF FRICTION	ASTM D1894	Film/Film	0,30			
		Film/Metal	0,20			
SURFACE TENSION	ASTM D2578	Dyne/cm	Treated Side	38		
			Other Side	-		
HEATSEAL RANGE	ASTM F88	°C	115-145			
		°F	239-293			
HEATSEAL STRENGTH (120 °C, 1 MPa, 1 s)	ASTM F88	N/15mm	2,0			

"Product Identification (Decision 97/129/EC): PP5"

Please be informed that additives used in antifog films are very sensitive to excess heat. Films should be kept in cool & dry places to maximize shelf life regarding the antifog performance. We should also like to remind that antifog films should be used in 6 months after production. We would like to inform that treated side could also show some level of antifog property since the antifog property of the film is retained by migrative additives.

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 film can also be supplied with ISCC+ certified raw materials with the category of bio-circular feedstock under the product group of SUPRENEW and category of circular feedstock under the product group of SUPCYCLE. SUPRENEW and SUPCYCLE products are certified with "Mass Balance" chain of custody system under ISCC+ and due to chemical processing of the feedstock, there is no compromise & change on any specific feature of the film given in this TDS regardless of the sustainable content in the film. Therefore all product properties of this film covers the same product code with SUPRENEW or SUPCYCLE brand. Three digits will be added to the end of the ISCC+ certified product code. SUPRENEW products will be differentiated with Rxx (R will communicate that the film is circular xx code will communicate the sustainable content % of the film) and SUPCYCLE products will be differentiated with Pxx (P will communicate that the film is circular xx code will communicate the sustainable content % of the film). Further details of the sustainable content of the film will be given in the Sustainability Declaration (SD) prepared for each ISCC+ certified order.

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

STANDARD ROLL DIMENSIONS			
CORE INNER DIAMETER (ID)	CORE OUTER DIAMETER (OD)	LENGTH TOLERANCE	WIDTH TOLERANCE
76 mm (3 in) & 152 mm (6 in)	530 mm & 790 mm *	± % 5 for ≤ 390 mm OD ± % 10 for > 390 mm OD	- 0 & + 4 mm

* 790 mm OD is available for BOPP films above 350 mm width