

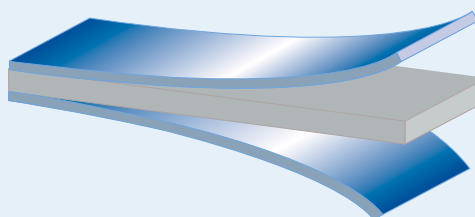
Propafilm™ NC

Technical Data Sheet



NC - Low Heat-Seal Threshold

Film. Biaxially oriented polypropylene (BOPP) film co-extruded on both sides with heat-sealable polyolefinic copolymers.



- Very Low Heat-Seal Threshold, Good Hot Slip Layer
- Oriented Polypropylene Blend
- Very Low Heat-Seal Threshold Layer

Features

- Heat-sealable both sides via low seal threshold coats
- Does not seal to coextruded films used in packet wrap provided recommended machine settings are used
- Good moisture and flavour barrier
- Optimised slip and anti-blocking both sides
- Strong seals for tamper evidence
- Very wide sealing range

Applications

NC23(92)25(100) are suitable for clear wrap/naked collation of wrapped packs where exceptional pack appearance is required.

Technical Properties (Typical Values)

Property	Test Method	Test Conditions	Units	NC	
Thickness	Innovia Films test		micron	23	25
			gauge	92	100
Yield	Innovia Films test		m ² /kg	47.8	44.0
			in ² /lb	33600	30900
			g/m ²	20.9	22.7
Permeability to: Water vapour	ASTM F 1249	38°C 90% RH 100°F 90% RH	g/m ² .24 hrs	5.3	5.0
			g/100in ² . 24 hrs	0.34	0.32
Oxygen	ASTM F 1927	23°C 0% RH 73°F 0% RH	cc/m ² .24 hrs	1650	1600
			cc/100in ² . 24 hrs	106	103
Optical: Gloss	BS 2923	20°	units	125	
Haze (wide angle)	ASTM D 1003	2.5°	%	1.5	
Coefficient of friction (out to out)	ASTM D 1894	Static/ Dynamic		0.30	
				0.25	
Tensile strength	ASTM D 882	Strain rate 50% / min	MN/m ²	MD	170
				TD	210
			lb/in ²	MD	24700
				TD	30500
Elongation at break	ASTM D 882	Strain rate 50% / min	%	MD	120
				TD	80
Elasticity modulus (1% secant)	ASTM D 882	Strain rate 10% / min	MN/m ²	MD	3000
				TD	3600
			lb/in ²	MD	435100
				TD	522100
Sealing range	Innovia Films test	2 secs; 0.10MN/m ² 2 secs; 15 psi	°C	90-140	
			°F	195-285	
Operational sealing range for clear wrap*	Innovia Films test	2 secs; 0.10MN/m ² 2 secs; 15 psi	°C	100-115	
			°F	210-240	
Seal strength	Innovia Films test	130°C; 2 secs; 0.10MN/m ² 265°F; 2 secs; 15 psi	g(f)/25mm/ in	500	
Shrinkage	Innovia Films test	60 secs at 120°C (250°F)	%	MD	4.5
				TD	3.5

MD Machine Direction TD Transverse Direction

All properties are tested under standard laboratory conditions: 23 ± 2°C, 50 ± 5% RH, (73 ± 4°F, 50 ± 5% RH), unless otherwise stated. Where relevant, tests are based on international testing standards.

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Reel Specifications

Nominal Reel Diameters

Film	Single Length (metres)	12x Length (metres)
NC23	1650	19800
NC25	1500	18000



Film	Single Length (feet)	12x Length (feet)
NC92	5413	64961
NC100	4921	59055

Other reel lengths are available subject to negotiation.

Outside Diameter	1x	2x	4x	6x	8x	12x
For 77mm / 3in core	240mm 9½in	330mm 13in	450mm 18in	-	-	-
For 153mm / 6in core	-	-	475mm 18¾in	570mm 22½in	650mm 25½in	785mm 31in

Film Winding

Propafilm™ NC has differential hot slip properties for maximum wrap tightness. When overwrapping, it is advised to use the low slip (higher coefficient of friction) surface on the inside of the wrap, against the wrapped packs. Propafilm™ NC is not recommended for printing applications.

Low Slip	Ordering Code	Label Symbol
Inside	I	
Outside	O	

*For printing application consult an Innovia Films Technical Representative.

Film Storage and Handling

No special conditions are required for the storage of Propafilm™ NC but it is recommended that dry conditions at temperatures below 30°C (85°F) are employed. Propafilm™ NC is suitable for use for 6 months from the date of delivery and stocks should be used in rotation. Films should be allowed to reach operating room temperatures for 24 hours before use.

Food Contact

Propafilm™ NC complies with the applicable EU and US legislation for most applications involving direct contact with foods. Full details are given on the Declaration of Compliance. Customers intending to use Propafilm™ NC in a food contact application should request a copy of this document from Innovia Films. Details of compliance with food contact legislation in non-EU countries are also available upon request.

Health & Safety Guidelines

For Health & Safety information, please refer to literature reference B190.

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