

# Peelable-C

## PPLC-PLAC

Data Sheet (December 2005)

### Product family Introduction

Nuroll Peelable-C is a bi-axially oriented polyester film, one side with an amorphous polyester heat seal layer, one side chemically treated to improve inks and/or adhesives adhesion.

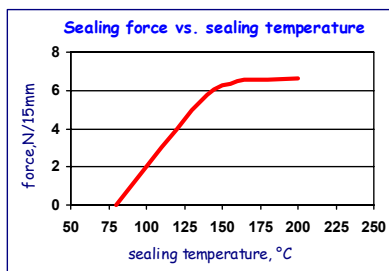
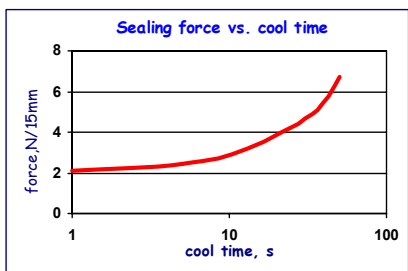
It is specially designed for heat sealable lidding application in packaging refrigerated and frozen foods. Nuroll Peelable-C shows also an excellent hot-tack for hot filling process.

Nuroll Peelable-C film can be placed at temperature down to  $-60^{\circ}\text{C}$  and up to  $200^{\circ}\text{C}$  with only limited distortion of the base film, for this reason the film is dual ovenable, pasteurizable and provides strong, consistent peeling to substrates such as APET, CPET, PETG and PVC in all the usual conditions

The heat seal layer is available in 2 different thickness, 2 (**PPLC** grade) and 3,5 (**PPHC** grade) microns. Nuroll Peelable-C is commercially available also with **anti-fogging** characteristics to assure more clarity and transparency when stored in refrigerators

### Sealing properties

Nu Roll Peelable-C film shows a very good seal immediately after the sealing (hot tack properties), for this reason represents the right choice for hot filling and MAP packaging applications. Its particular formulation guarantees a good seal without stress the shredding behavior.



### Welding force of 23 PPHC on different substrates

Welding conditions	Film/Film	Film/Film at 0°C	Film/ CPET (APET layer)	Film/ Cardboard	Film/ Cardboard at 0°C	Film/ 23µ Film plain
140°C-4bar-1sec	> 6,5	5	5,5	2,5	2,5	2,5
140°C-4bar-2sec	> 6,5	5,5	6,5	3,5	2,5	2,5
140°C-4bar-4sec	> 6,5	5,5	7,5	3,5	2,5	2,5
160°C-4bar-1sec	> 7	6,5	7	3	3	3
160°C-4bar-2sec	> 7	6,5	7,5	3	3	3
160°C-4bar-4sec	> 7	6,5	7,5	4	3	3
190°C-4bar-1sec	> 7	> 7	7	3,5	3,5	4
190°C-4bar-2sec	> 7	> 7	8	4	3,5	4
190°C-4bar-4sec	> 7	> 7	8	4	3,5	4

Specimen structure	N/15 mm
Film/Film	> 6,5
Film/ 50µ Film plain	5
Film/ Cardboard	3,5
Film/ APET	7,5
Film/ 100% CPET	5
Film/ Alluminium 64µ	3,5 - 4

FORCE is measured by INSTRON dynamometer in N Sample dimension is 15 mm width

Cardboard is laminated with BOPET film, cardboard polyester extrusion coated behaviour is like CPET

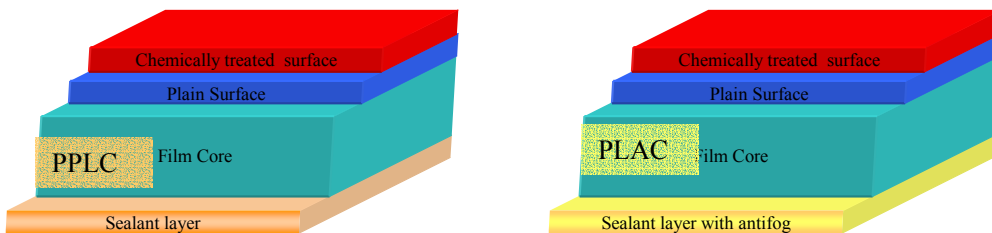
# Peelable-C

## PPLC-PLAC

### Product description

**Nuroll PPLC** is suggested when good sealability for not complex tray substrate (also without possibility to dirty the sealing zone during the filling) and enhanced printability or laminate adhesion is requested.

**Nuroll PPLC** is commercially available also with anti-fogging characteristics (PLAC) to assure more clarity and transparency when stored in refrigerators



### Main Applications

Cheeses, salted meats, dried food

### Technical details

Nuroll PPLC is usually supplied with following characteristics:

- **Core diameter:** 6 inch (152.76 mm)
- **Film width:** min 400 mm, max 1400mm
- **Film length:** According with film thickness and max external reel diameter 640mm

Substrate Thickness (microns)	12	23
Max Reel lenght (m)	12000	8000

- **Packing presentation:** suspended reel; wooden endboards, lid and pallet; stretchable PE film

### Different characteristics than the above on request

### Storage conditions

Nuroll PPLC need to be stocked in close warehouse and preserved from the light and from the humidity.

Reels must be not stacked

Nuroll will not accept any responsibility for material older than 1 year from the delivering

### Compliance with regulations

**Polyester Film** produced by Nuroll SpA, complies with EEC, Italian and FDA requirements on packaging for direct contact with foodstuffs

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## PPLC-PLAC

### Typical Properties

Properties	Unit	Test Method	Typical properties PPLC grade		Typical properties PLAC grade	
Film base Thickness	Microns	ASTM E 252	12	23	12	23
Coating weight	g/m <sup>2</sup>	ASTM D1505	2	2	2	2
Total thickness	Microns	ASTM E 252	14	25	14	25
Area Yield (nominal)	m <sup>2</sup> /kg	ASTM E 252	53	30	53	30
Tensile strength	MD	N/mm <sup>2</sup> ASTM D 882	230	230	230	230
	TD		240	240	240	240
Elongation at Break	MD	% ASTM D 882	130	130	130	130
	TD		120	120	120	120
Thermal Shrinkage 150°C-30'	MD	% ASTM 1204	2	2	2	2
	TD		0,5	0,5	0,5	0,5
Haze	%	ASTM D1003	7	7	7	7
MVTR (38°C, 90%RH)	g/m <sup>2</sup> *day	ASTM E398	50	25	50	25
OTR (20°C, 0%RH)	cc/m <sup>2</sup> *day	ASTM D3985	110	55	110	55
Welding force (on itself) 140°C—4 bar—4 s	N/15mm	Internal	5,5	5,5	3,5	3,5

1. This information is the best currently available on product and it is subject to revision as additional knowledge and experience is gained.
2. The results obtained and the above properties refer to average value of laboratory tests. Therefore, such results have only to be considered as an indicative general guide to material properties and not as an implied guarantee that the product actually has said properties and/or a warranty of fitness for a particular purposes and/or suggestion for infringement of any existing patents.
3. Due to many factors which may affect customer production process, including but not limited by different equipments and techniques used, PPLC-PLAC film must be qualified before being used in any application.