

PTN89

HIGHLIGHTS

TYPICAL APPLICATION

▪ **Food packaging**

It can be used on a wide range of packaging where high oxygen & moisture barrier protection is required (ex: MAP, Top of trays, coffee pod lid).

To be used laminated.

PROPERTIES

- Excellent Aroma barrier
- Excellent Oxygen and other gasses barrier
- Excellent moisture barrier
- High barrier performance at high humidity conditions
- Absence of Chlorine
- Not suitable for retorting & pasteurisation

TECHNICAL DATA

PROPERTIES	TEST CONDITIONS	UNITS	TYPICAL VALUES
Thickness	Internal method	µm	12
Thickness Range	Internal method	µm	± 0.5
Tensile Strength	ASTM D882	N/mm ²	210-230
			220-240
Elongation at break	ASTM D882	%	120-130
			110-120
Young's Modulus	ASTM D882	kg/mm ²	420-450
			480-500
COF dynamic - film/film (not coated side)	ASTM D1894	-	0.35-0.50
Surface tension (coated side)	ASTM D2578	dynes/cm	> 42
Oxygen Permeability	ASTM D3985 (23°C & 75%rh)	cc/m ² x24h	< 0.7
Water Vapour Permeability	ASTM F1249 (38°C & 90%rh)	g/m ² x24h	< 1.0
Haze	ASTM D1003	%	< 2
Dimensional stability	Internal method (150°C – 30min)	%	1.4-1.8
			0.2-0.4
Unit weight	Internal method	g/m ²	17.50
Yield	Internal method	m ² /kg	57.14

REELS CONFORMATION AVAILABILITY

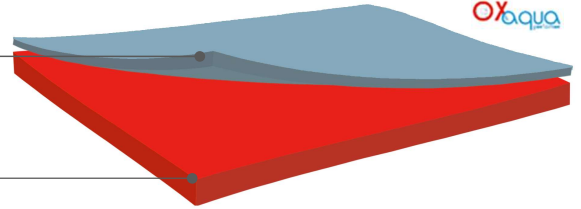
Maximum width	1700mm
Maximum external diameter	800mm
Internal diameter	152mm or 76mm
Coated side position	INSIDE (if requested, outside also available)
Packaging	Horizontal - Suspended

STORAGE – TERM OF USE

PTN89 is delivered with a specific packaging (overwrapped metallised plastic film) intended to protect the film against ambience influence. For all the period before its use, the material must be stored in a close warehouse and kept packed in its original packaging. In case of partial use, the not used rest reel must be packed again using the overwrapped metallised plastic film provided. SAES coated films will not accept any responsibility for material processed after 6 months from delivery date.

Barrier superior coating

BOPET



PTN89

The SAES Group manufacturing companies are ISO9001 certified. Full information about our certifications for each company of the Group are available on our website at: www.saesgroup.com

PRINTING GUIDELINES

- Water based primers and/or inks are not suitable.
- Barrier superior coating can be easily printed with a wide range of inks available in the market. Good adhesion results can be reached using:

Flexo printing	-> Nitrocellulose/PU based inks
Roto printing	-> Vinylic based inks
- Do not re-treat barrier superior coating
- Good drying is necessary for low solvent retention

LAMINATION GUIDELINES

Due to high content of -OH reactive groups of the barrier superior coating of PTN89 film, to its hygroscopicity and its surface tension, special care is to be taken while choosing the proper adhesive system:

- Are to be avoided those adhesive systems lacking in stretching elasticity after the cross-linking reaction, leading to a reduction in the bond value. For that reason are to be preferred -OH ended solvent based adhesives and -NCO ended solvent less adhesives having the characteristic to be considered "soft".
- In order to help final stretching elasticity of the adhesive system, it is possible to decrease of about 10-20% the quantity of isocyanic cross-linker usually adopted to crosslink the solvent based -OH terminated adhesives, or increasing of about 5-10% the quantity of the hydroxyl component (second component) in the solvent-less systems.
- Lamination process must be carried out at controlled humidity (as lower as possible).
- Water based adhesives are not suitable.
- Do not re-treat coated side.
- Adhesive to be applied on PTN89 coated side (printed or not).
- Rewinding/Unwinding tensions must be well controlled to avoid curling or tubing of the laminated structure.
- Nip-roller pressure and temperature must be well adjusted.

Selection of adhesives series

The following selection, based on our updated experience, must be intended only as a suggestion:

Novachem Industriale	Solvent based Solvent less	Adoxene AD 737 / AD 31 R Adoxene AD 183 / AD 78 C
Rohm&Haas	Solvent based Solvent less	Adcote 775 A/C; Adcote 675 A/C; Adcote 563A / Cat F Mor Free 698A / C79
Henkel	Solvent based Solvent less	UK 2615 / UK 5015; UR 3966-21 / LA 6064-21; UR 3740 / UR 6029-21 UR 7738 / UR6087; LA 7785 / LA 6025-23; UR 7782 / UR 6083

CRITICAL APPLICATIONS

- PTN89 is not suitable to be used in under vacuum pouches & in stand-up pouches having "zip-closure".
- PTN89 is not suitable to be used for packaging to be dipped in water.
- For any new application is intended to be used, PTN89 must be sampled. It is required to provide to our technical dept all the necessary information regarding packaging final use & shelf life conditions.

Whilst SAES coated films aims to ensure the accuracy and relevance of the information given on the use and application of its products, it cannot guarantee the data, some of which on outside sources, or its completeness. Provided data refer to our film as it is. Customers must remain responsible for their own product testing, evaluation and for their own safety procedures.

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