

HIGHLIGHTS

TYPICAL APPLICATION

▪ **Food packaging**

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

To be used laminated.

PROPERTIES

- Excellent Aroma barrier
- Excellent Oxygen and other gasses barrier
- Excellent transparency
- Excellent printability on coated side
- Absence of Chlorine
- Not suitable for retorting & pasteurisation

BOPET coated on one side with high oxygen barrier properties

TECHNICAL DATA

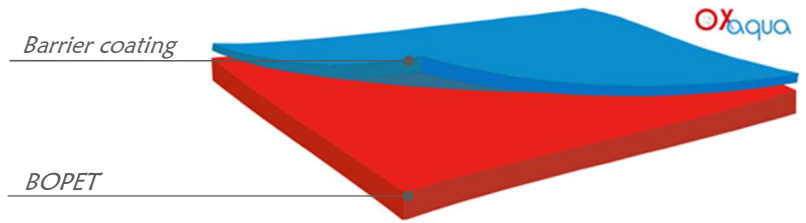
PROPERTIES		TEST CONDITIONS	UNITS	TYPICAL VALUES		
Thickness		Internal method	µm	12	23	36
Thickness Range		Internal method	µm	± 0.5		
Tensile Strength	MD	ASTM D882	N/mm ²	210-230	210-230	200-220
	TD			220-240	220-240	210-230
Elongation at break	MD	ASTM D882	%	120-130		
	TD			110-120		
Young's Modulus	MD	ASTM D882	kg/mm ²	420-450	420-450	430-460
	TD			480-500	480-500	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 & 0%rh)	cc/m ² x24h	< 1		
Water Vapour Permeability		ASTM F1249 (38°C & 90%rh)	g/m ² x24h	< 35	< 20	< 15
Nitrogen permeability		math calculation	cc/m ² x24h	< 0.15		
CO ₂ permeability		math calculation	cc/m ² x24h	< 3		
Haze		ASTM D1003	%	< 2		
Dimensional stability	MD	Internal method (150°C – 30min)	%	1.4-1.8	1.4-1.8	1.2-1.5
	TD			0.2-0.4	0.2-0.4	0.2-0.4
Unit weight		Internal method	g/m ²	17.40	32.80	51.00
Yield		Internal method	m ² /kg	57.47	30.48	19.61

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

PTN09 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.



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 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 coating
- Good drying is necessary for low solvent retention

LAMINATION GUIDELINES

Due to high content of -OH reactive groups of the barrier coating of PTN09 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 PTN09 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

- PTN09 is not suitable for packaging intended to be stored in high stressing humidity & temperature conditions.
- PTN09 is not suitable to be used in under vacuum pouches & in stand-up pouches having “zip-closure”.
- PTN09 is not suitable to be used for packaging to be dipped in water.
- For modified atmosphere packaging (MAP) application with CO₂ > 60% and room temperature conditions, please contact our technical department for specific advice.
- For any new application is intended to be used, PTN09 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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