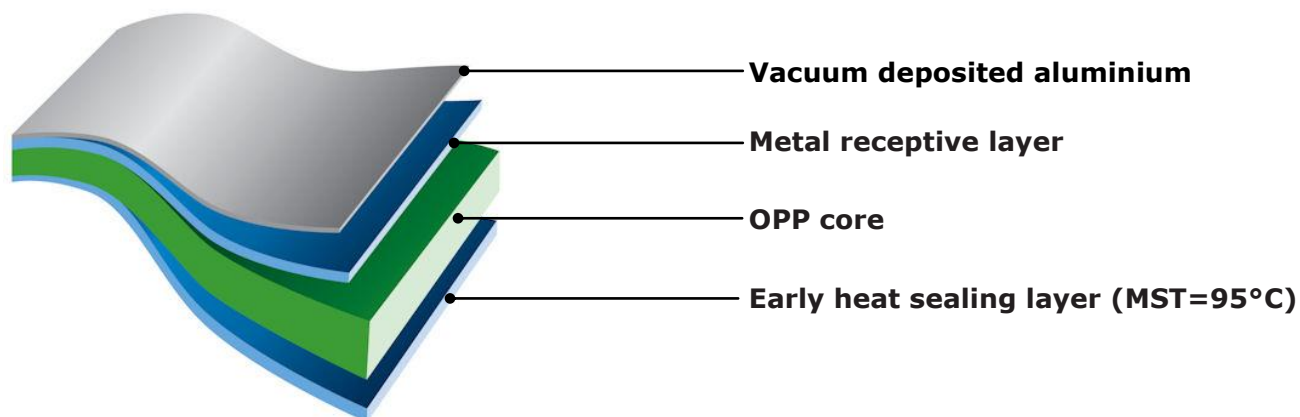




ZES

BoPP metallised film, ones side wide heat seal range



PROPERTIES

- Non metallised early sealing layer (MST=95°C)
- Very good moisture barrier
- Good oxygen barrier
- Good mechanical properties
- High light barrier

TYPICAL APPLICATIONS

- Higher packaging speed on HFFS packaging machines
- Rotogravure and flexographic printing
- Lamination
- Single web application
- VFFS packaging

ROLL SIZE AVAILABILITY*

Film	Standard Length (m)	4x ** (m)	6x (m)	12x (m)
ZES 15	4,000	16,000	24,000	48,000
ZES 20	3,000	12,000	18,000	36,000
ZES 30	2,000	8,000	12,000	24,000
Outside diameter - core 76 mm	300 mm	565 mm		
Outside diameter - core 152 mm	330 mm	585 mm	715 mm	995 mm

*Regional availability of roll sizes (multiples of standard length)-please refer to the corresponding Sales Representative

**Length rolls on 152 mm cores will be produced with reduced length in Europe to maintain roll diameters below 600 mm

Properties	Method	Unit	Ref.	Typical values		
Nominal thickness	Internal method	µm		15	20	30
Unit weight		g/m ²		13.7	18.2	27.3
Yield		m ² /kg		73.3	54.9	36.6
Tensile strength	ASTM D882	N/mm ²	MD TD	140 280		
Elongation at break		%	MD TD	170 45		
Optical density (O.D.)	Internal Method			2.3		
Dynamic cof	ASTM D1894		NT/NT	0.30		
Thermal shrinkage	OPMA TC4(a)	%	MD TD	6.0 3.0		
Heat seal range	Internal method	°C	NT/NT	95÷140		
Seal strength	Internal method 130°C ;0.5 s	g/cm		140	180	
Oxygen permeability	ASTMD3985 (23°C - 0% RH)	cm ³ /m ² /d		90		
Water vapour permeability	ASTM F1249 (38°C - 90% RH)	g/m ² /d		0.40		
Tolerance						
Weight		≤ 1.000 kg		± 20%		
		1.001-10.000 kg		± 10%		
		> 10.000 kg		± 5%		

STORAGE, HANDLING AND APPLICATION

ZES does not require special storage conditions. A storage temperature below 30°C is recommended in order to minimise the deterioration of the film properties in general. It is advisable to turn over the inventory according to the delivery date (first in-first out). The film should be conditioned in the operating environment at least for 24 hours before processing. ZES is suitable for use up to 6 months from the date of production.

PRINTABILITY / LAMINATION

Before printing or laminating the use of an inline Corona station is highly recommended in order to boost treat the metal surface. Further it is advisable to use adequate primer when the metallised surface is to be printed.

INDICATION OF SURFACE TREATMENT

ZES is usually supplied with aluminium on the outside surface (TO).

ZES can be supplied with aluminium on the inside surface (TI). This must be agreed with our sales representative before processing the order.

FOOD CONTACT

ZES complies with EC and FDA regulations. Specific documents and MSDS are available on request.

The property values represented in the table do not constitute product specifications, but represent the average or typical values. Use of this information is limited to the specific recipient. While the information is accurate to the best of our knowledge as of the date compiled, it is limited to the information as specified. No representation or warranty, expressed or implied, is made regarding the information, or its completeness or fitness to a particular use. The user is solely responsible for all determinations regarding use and we disclaim liability for any loss or damage that may occur from the use of this information. Ti does not guarantee the typical (or other) values.