

ECOSYAR VE100 is the film made by applying ceramic (silica/alumina) deposition based on polyester film and adding superior barrier properties while keeping the heat resistance of PET.

FUTURE

- (1) Superior in moisture-proof properties and gas barrier properties
- (2) Colorless and transparent
- (3) The decrease of the barrier properties by the film elongation are small during the secondary process etc.

USE

You can use it for many things from dry foods, boiled foods, and microwave foods to non-foods. It can be a substitute for aluminum foil, aluminum deposition, and PVDC coated products.

## Single physical property of the ECOSYAR VE100

Item	VE100	Unit	Reference	
Thickness	12	μm		
Vapor transmissivity	2	g/m <sup>2</sup> ,d		
Oxygen transmissivity	20(2)	ml/m <sup>2</sup> ,d,MPa(cc/m <sup>2</sup> ,d)		
Total light transmittance	90	%	Same as PET	
Haze	2.6	%	Same as PET	
Color(b)	2		Same as PET	
Tensile breaking strength	MD/TD	220/230	Mpa	Same as PET
Tensile breaking elongation	MD/TD	100/95	%	Same as PET
Impact strength		0.4	J	Same as PET
Heat shrinkage rate (160 degrees C, 10mins)	MD/TD	1.4/0.2	%	Same as PET

MD/TD = Length/Width \*All the numerical values are shown by representative value

## Barrier properties of the laminated products

Item	Vapor transmissivity g/m <sup>2</sup> ,d	Oxygen transmissivity ml/m <sup>2</sup> ,d,MPa(cc/m <sup>2</sup> ,d)	
Unprocessed (Blank)	1.0	10(1.0)	
Boiling process	1.7	13(1.3)	95 degrees C, 30mins
Gelbo test	1.3	54(5.4)*	23°C,50 times

\*Reference: The aluminum deposited PET is 10ml/m<sup>2</sup>,d,MPa if unprocessed. However it becomes 103ml/m<sup>2</sup>,d,MPa after the Gelbo process. Furthermore, the lamination strength is over 5N/15mm (the film broken) before and after the boiling process.

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