

ECOSYAR VN100 is the film made by applying ceramic (silica/alumina) deposition based on harden film N1100 and adding superior barrier properties while keeping the toughness of ONY.

## FUTURE

- (1) Superior in moisture-proof properties and gas barrier properties under high humidity
- (2) Colorless and transparent
- (3) The barrier property decrease of the film is small during the secondary process

## USE

You can use it for oxygen absorber enclosed foods, small packaging of seasonings, heavy load bag, BIB, lids etc. It can be used as a substitute for the functions of PVDC coating, ONY (KNY), and other barrier packaging.

Please utilize for boiling and retort use by sealant structure/VN100/PET.

## Single physical property of the ECOSYAR VN100

Item	VN100	KNY	Unit	Reference
Thickness	15	18	μm	
Haze	2	4	%	Same as ONY
Color(b)	2	3		
Tensile breaking strength	210/275	220/250	Mpa	Same as ONY
Tensile breaking elongation	100/70	100/70	%	Same as ONY
Impact strength	1.2	1	J	Same as ONY
Bending pinhole properties	3	5	5000times at 23°C	Same as ONY

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

## Barrier properties of the laminated products

	Oxygen transmissivity ml/m <sup>2</sup> ,d,MPa(cc/m <sup>2</sup> ,d)		Vapor transmissivity g/m <sup>2</sup> ,d		
	VN100	KNY	VN100	KNY	
Unprocessed (Blank)	20(2)	60(6)	3	5	
Water soaking	30(3)	70(7)	4	5	Water soaking: 1 day
Gelbo test	40(4)	70(7)	5	5	23°C,50times

## Lamination strength

	VN100	KNY
Unprocessed (Blank)	6.7/1.9	3.4/1.2

The numerical values are shown by normal separation/water soaking separation

\*Dry lamination conditions

Adhesive agent: TOYO MOTON TM590/CAT56, Application amount 3.0g/m<sup>2</sup>, 40 Celsius degrees\*2 days aging

Lamination structure : VN100/LLDPE (L6102 40μm)

**TOYOBO CO., LTD.** Packaging Film  
<http://www.toyobo.co.jp/seihin/film/>

2-8,Dojima hama 2-chome,Kita-ku,Osaka  
 530-8230,JAPAN

[TEL]+81-6-6348-4156 [FAX]+91-6-6348-4159