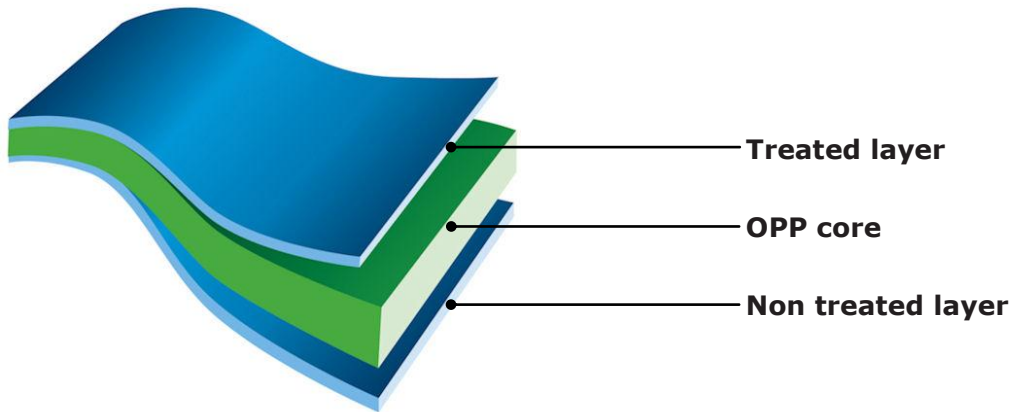




# TNS

**BoPP transparent film, non sealable, treated**



## PROPERTIES

- Excellent optical properties
- Good mechanical properties
- High surface treatment

## TYPICAL APPLICATIONS

- Rotogravure and flexographic printing
- Lamination
- Single web structure
- Suitable also as cold seal release film

## ROLL SIZE AVAILABILITY\*

Film	Standard Length (m)	4x ** (m)	7x (m)
TNS 20	3,200	12,800	22,400
TNS 25	2,550	10,200	17,850
TNS 30	2,100	8,400	14,700
TNS 35	1,800	7,200	12,600
TNS 40	1,600	6,400	11,200

Outside diameter - core 76 mm	305 mm	588 mm	
Outside diameter - core 152 mm	337 mm	605 mm	783 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		20	25	30	35	40
Unit weight		g/m <sup>2</sup>		18.2	22.8	27.3	31.9	36.4
Yield		m <sup>2</sup> /kg		54.9	44.0	36.6	31.4	27.5
Tensile strength	ASTM D882	N/mm <sup>2</sup>	MD TD	150 280				
Elongation at break		%	MD TD	140 50				
Haze	ASTM D1003	%		1.0				
Gloss (45°)	ASTM D2457	Gloss Unit		90				
Dynamic cof	ASTM D1894		NT/NT	0.35				
Thermal shrinkage	OPMA TC4(a)	%	MD TD	6.0 2.0				
Treatment level	ASTM D2578	mN/m		40				
Water vapour permeability	ASTM F1249 (38°C - 90% RH)	g/m <sup>2</sup> /d		7.0	6.0	5.0	4.0	3.2

Tolerance		
Weight	≤ 1.000 kg	± 20%
	1.001-10.000 kg	± 10%
	> 10.000 kg	± 5%

## STORAGE, HANDLING AND APPLICATION

TNS 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. TNS is suitable for use up to 6 months from the date of production.

## INDICATION OF SURFACE TREATMENT

TNS is usually supplied with treatment on the outside surface (TO). TNS can be supplied either with treatment on the inside surface (TI) or treated on both sides (DO, DI). This must be agreed with our sales representative before processing the order.

## FOOD CONTACT

TNS 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.