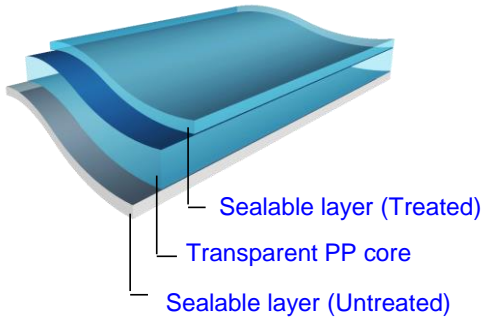




# THAI FILM INDUSTRIES PUBLIC CO., LTD.

## B-21a



## BOPP CO-EX PRINTING & LAMINATION

### Description:

This film is widely used in packaging printing and laminating applications. TFI film has both side heat sealable. It offers excellent machinability, good heat seal strength, good dimensional stability and flatness.

### Characteristics :

- Printability
- Good dimensional stability
- Less electro static on film surface

### TECHNICAL DATA

TYPICAL PROPERTIES	UNIT	TEST METHODS	TYPICAL VALUE					
			15	18	19	20	25	26
THICKNESS	Micron	Progage	15	18	19	20	25	26
YIELD	m <sup>2</sup> /kg	-	73.26	61.05	57.84	54.95	43.96	42.26
DENSITY	g/cm <sup>3</sup>	ASTM D-1505	0.91					
AVERAGE THICKNESS VARIATION	%	ASTM E-252	± 3					
TENSILE STRENGTH	kg/mm <sup>2</sup> (min)	MD	13					
		TD	26					
ELONGATION AT BREAK	% (max)	MD	200					
		TD	70					
THERMAL SHRINKAGE (120°C 15min.)	% (max)	MD	4.0					
		TD	2.0					
KINETIC C.O.F.	NT/NT	ASTM D-1894	0.2 - 0.5					
SEALING RANGE	°C	1 BAR 1 SEC	115 – 140					
SEALING STRENGTH	g/15mm (min)	-	200					
WETTING TENSION	Dyne/cm (min)	ASTM D-2578	38					
GLOSS (Angle 45°)	% (min)	ASTM D-2457	85					
HAZE	% (max)	ASTM D-1003	2.5				3.0	
WVTR (38 °C, 90% RH)	g/m <sup>2</sup> /24hr (max)	ASTM F-1249	8				6	
O <sub>2</sub> TR (23 °C, 0% RH)	cc/m <sup>2</sup> /24hr (max)	ASTM D-3985	2000				1800	

### DESCRIPTION OF SUPPLY

PAPER CORE I.D.	77 mm (3 in.) 153 mm (6 in.)
ROLL O.D.	max. 800 mm
WIDTH RANGE	100 mm - 1,500 mm. (other width on request), Allowance 0, +3 mm
COMBINATION WIDTH	6,000 mm.
LENGTH RANGE	STANDARD 4,000 m., 6,000 m. (other length on request)
JOINT	maximum 10% per order

**Food approval :** Complied with US FDA & EU regulations (on request).

**Storage condition:** Should be kept in dry storage with temperature 30°C - 40°C.

### Disclaimer:

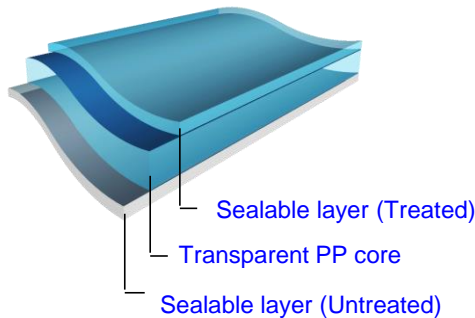
The information provided above is accurate to the best of our knowledge. It is however suggested that the customer confirms these values and product compatibility prior to their use. Thai Film Industries PCL offers no guarantees nor accepts any responsibility for the fitness of the product for any particular use.

18/10/2021



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## B-21a



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### Characteristics :

- Printability
- Good dimensional stability
- Less electro static on film surface

### TECHNICAL DATA

TYPICAL PROPERTIES	UNIT	TEST METHODS	TYPICAL VALUE					
			30	35	40	41	45	50
THICKNESS	Micron	Progage	30	35	40	41	45	50
YIELD	m <sup>2</sup> /kg	-	36.63	31.40	27.47	26.80	24.42	21.98
DENSITY	g/cm <sup>3</sup>	ASTM D-1505	0.91					
AVERAGE THICKNESS VARIATION	%	ASTM E-252	± 3					
TENSILE STRENGTH	kg/mm <sup>2</sup> (min)	MD	13					
		TD	26					
ELONGATION AT BREAK	% (max)	MD	200					
		TD	70					
THERMAL SHRINKAGE (120°C 15min.)	% (max)	MD	4.0					
		TD	2.0					
KINETIC C.O.F.	NT/NT	ASTM D-1894	0.2 - 0.5					
SEALING RANGE	°C	1 BAR 1 SEC	120 – 140					
SEALING STRENGTH	g/15mm (min)	-	300					
WETTING TENSION	Dyne/cm (min)	ASTM D-2578	38					
GLOSS (Angle 45°)	% (min)	ASTM D-2457	85					
HAZE	% (max)	ASTM D-1003	3.0			3.5		
WVTR (38 °C, 90% RH)	g/m <sup>2</sup> /24hr (max)	ASTM F-1249	5	4	3			
O <sub>2</sub> TR (23 °C, 0% RH)	cc/m <sup>2</sup> /24hr (max)	ASTM D-3985	1600	1500	1400	1200	900	

### DESCRIPTION OF SUPPLY

PAPER CORE I.D.	77 mm (3 in.) 153 mm (6 in.)
ROLL O.D.	max. 800 mm
WIDTH RANGE	100 mm - 1,500 mm. (other width on request), Allowance 0, +3 mm
COMBINATION WIDTH	6,000 mm.
LENGTH RANGE	STANDARD 4,000 m., 6,000 m. (other length on request)
JOINT	maximum 10% per order

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