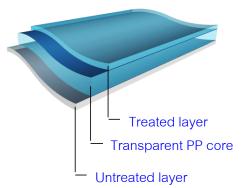


THAI FILM INDUSTRIES PUBLIC CO., LTD.

B-01



BOPP PLAIN FOR PRINTING & LAMINATION

Description:

This film is widely used in printing and laminating for food and non food packaging application.
TFI film offers exceptional clarity.
Good dimensional stability, flatness and strength.

Characteristics:

Clarity

Good flatness & high strength
Excellence dimensional stability
Suitable for high speed printing machine
Less electrostatic on film surface

TECHNICAL DATA

TECHNICAL DATA											
TYPICAL PROPERTIES	UNIT		TEST METHODS	TYPICAL VALUE							
THICKNESS	Micron		Progage	12	15	17	18	19	20		
YIELD	m²/kg		-	91.58	73.26	64.64	61.05	57.84	54.95		
DENSITY	g/cm ³		ASTM D-1505	0.91							
AVERAGE THICKNESS VARIATION	%		ASTM E-252	± 3							
TENSILE	kg/mm ²	MD	ASTM D-882	13							
STRENGTH	(min)	TD	A31W D-002	27							
ELONGATION	%	MD	ASTM D-882	22	0		200				
AT BREAK	(max)	TD	ASTIVI D-002	60							
THERMAL SHRINKAGE	%	MD	ACTM D 1204	4.0							
(120°C 15min.)	(max)	TD	ASTM D-1204	2.0							
KINETIC C.O.F.	NT/NT		ASTM D-1894	0.35 – 0.50							
WETTING TENSION	Dyne/cm (min)		ASTM D-2578	38							
GLOSS (Angle 45°)	% (min)		ASTM D-2457	85							
HAZE	% (max)		ASTM D-1003	1.8 2.0							
WVTR (38 °C, 90% RH)	g/m²/24hr (max)		ASTM F-1249	10		9			8		
O ₂ TR (23 °C, 0% RH)	cc/m ² /24hr (max)		ASTM D-3985	220	00	2100		20	2000		

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. or 8,000 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.

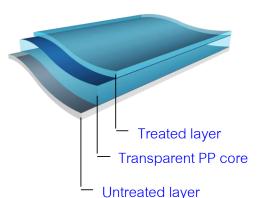
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TECHNICAL DATA

UI	NIT	TEST METHODS	TYPICAL VALUE						
Micron		Progage	23	25	27	28	30		
m²/kg		-	47.78	43.96	40.70	39.25	36.63		
g/cm ³		ASTM D-1505	0.91						
%		ASTM E-252	± 3						
kg/mm ²	MD	V61M D 003	13						
(min)	TD	A31W D-002	27						
%	MD	187M D 882	200						
(max)	TD	A31W D-002	60						
% MD		A STM D 1204	4.0						
(max)	TD	ASTIVI D-1204	2.0						
NT/NT		ASTM D-1894	0.35 – 0.50						
Dyne/cm (min)		ASTM D-2578	38						
% (min)		ASTM D-2457	85						
% (max)		ASTM D-1003	2.0						
g/m ² /24	Ihr (max)	ASTM F-1249	6	6	Ę	5	4		
cc/m ² /2	4hr (max)	ASTM D-3985	18	00	17	00	1600		
	kg/mm² (min) % (max) NT Dyne/c % (g/m²/24	m²/kg g/cm³ % kg/mm² MD (min) TD % MD (max) TD NT/NT NT/NT Dyne/cm (min) % (min)	Micron Progage m²/kg - g/cm³ ASTM D-1505 % ASTM E-252 kg/mm² MD (min) TD % MD (max) TD % MD (max) ASTM D-882 NT/NT ASTM D-1204 NT/NT ASTM D-1204 Dyne/cm (min) ASTM D-2578 % (min) ASTM D-2457 % (max) ASTM D-1003 g/m²/24hr (max) ASTM F-1249	Micron Progage 23 m²/kg - 47.78 g/cm³ ASTM D-1505 % ASTM E-252 kg/mm² MD ASTM D-882 (min) TD % MD ASTM D-882 % MD ASTM D-1204 (max) TD ASTM D-1204 NT/NT ASTM D-1894 ASTM D-2578 % (min) ASTM D-2457 % (max) ASTM D-1003 g/m²/24hr (max) ASTM F-1249	METHODS Micron Progage 23 25 m²/kg - 47.78 43.96 g/cm³ ASTM D-1505 43.96 % ASTM D-1505 ASTM E-252 kg/mm² MD ASTM D-882 (min) TD ASTM D-882 % MD ASTM D-1204 MT/NT ASTM D-1204 ASTM D-1204 Dyne/cm (min) ASTM D-2578 % (min) ASTM D-2457 % (max) ASTM D-1003 g/m²/24hr (max) ASTM F-1249 6	Micron Progage 23 25 27 m²/kg - 47.78 43.96 40.70 g/cm³ ASTM D-1505 0.91 % ASTM E-252 ± 3 kg/mm² MD (min) ASTM D-882 13 % MD (max) ASTM D-882 200 % MD (max) ASTM D-1204 4.0 NT/NT ASTM D-1204 0.35 - 0.50 Dyne/cm (min) ASTM D-2578 38 % (min) ASTM D-2457 85 % (max) ASTM D-1003 2.0 g/m²/24hr (max) ASTM F-1249 6 5	Micron Progage 23 25 27 28 m²/kg - 47.78 43.96 40.70 39.25 g/cm³ ASTM D-1505 0.91 % ASTM E-252 ± 3 kg/mm² (min) MD ASTM D-882 13 (min) TD 200 % MD ASTM D-882 60 % MD ASTM D-1204 4.0 (max) TD 4.0 2.0 NT/NT ASTM D-1894 0.35 − 0.50 Dyne/cm (min) ASTM D-2578 38 % (min) ASTM D-2457 85 % (max) ASTM D-1003 2.0 g/m²/24hr (max) ASTM F-1249 6 5		

DESCRIPTION OF SUPPLY

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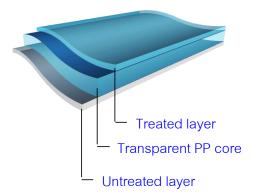
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B-01



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TECHNICAL DATA

ILCHNICAL DATA											
TYPICAL PROPERTIES	U	NIT	TEST METHODS	TYPICAL VALUE							
THICKNESS	Micron		Progage	35	40	42	45	48	50	60	
YIELD	m²/kg		-	31.40	27.47	26.16	24.42	22.89	21.98	18.32	
DENSITY	g/cm ³		ASTM D-1505	0.91							
AVERAGE THICKNESS VARIATION	%		ASTM E-252	± 3							
TENSILE	kg/mm ²	MD	ASTM D-882	13							
STRENGTH	(min)	TD		27							
ELONGATION AT BREAK	%	MD	ASTM D-882	200							
	(max)	TD	A31W D-002	60							
THERMAL SHRINKAGE	%	MD	ACTM D 1204	4.0							
(120°C 15min.)	(max)	TD	ASTM D-1204	2.0							
KINETIC C.O.F.	NT/NT		ASTM D-1894	0.35 - 0.50							
WETTING TENSION	Dyne/cm (min)		ASTM D-2578	38							
GLOSS (Angle 45°)	% (min)		ASTM D-2457	85							
HAZE	% ((max)	ASTM D-1003	2.2							
WVTR (38 °C, 90% RH)	g/m ² /2 ⁴	thr (max)	ASTM F-1249	4 3						2	
O ₂ TR (23 °C, 0% RH)	cc/m ² /2	4hr (max)	ASTM D-3985	1400 1200 1000 900			900	800			

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