

# A.J. Plast Public Company Limited



## **Biaxially Oriented Polyamide Film General Application**

**Key Features:** Excellent barrier to gas, fat and transmission of aroma

**Exceptional Mechanical Strength** 

High resistance to impact punctures and pin holing

Heat resistance, Low temperature resistance

Non toxic, Odorless

**Excellent Flexcrack Resistance** Easy Thermo formability **Excellent Printability** 

Application: Packaging for frozen foods and liquid foods

**Examples:** Precooked Foods

Ham and Sausage Jam and Preserves Vegetable pack Seasoning Coffee package Pet food package

Structure: Enhanced Polyamide Skin; Corona Treated (A)

> Polyamide Core (B)

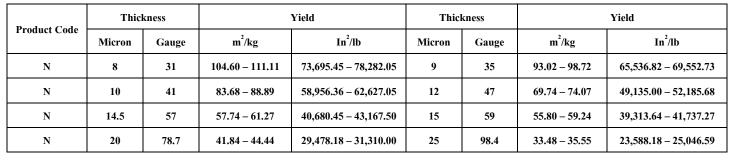
Enhanced Polyamide Skin (C)

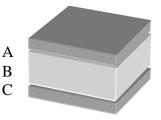
Optional; One or two side corona treated (A/C)

Additional: Inline inspection system to detect those unwanted defects

Film produced in a controlled environment

### Thickness Available:





#### TECHNICAL DATA

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TYPICAL PROPERTIIES			UNIT		TEST METHODS	TYPICAL VALUE			
THICKNESS		micron		Micrometer	8	9	10	12	
AVERAGE THICKNESS	VARIATION		%		ASTM E-252-78	± 3	± 3	± 3	± 3
YIELD			m²/kg		ASTM D4321	104.60-111.11	93.02 - 98.72	83.68 - 88.89	69.74 - 74.07
DENSITY			g/cm <sup>3</sup>		ASTM D-1505	1.16	1.16	1.16	1.16
TENSILE STRENGTH		MD	N/mm <sup>2</sup>	(min)	ASTM D-882	220	220	220	220
		TD				250	250	250	250
ELONGATION AT BREA	ıK	MD	%		ASTM D-882	90-150	90-150	90-150	90-150
		TD				90-130	90-130	90-130	90-130
DIMENSIONAL STABIL	ITY	MD	%	(max)	ASTM D-1204	2.0	2.0	2.0	2.0
		TD			160 °C, 5 minutes	2.0	2.0	2.0	2.0
COF 1	Both side	Inside			ASTM D-1894	0.3-0.5	0.3-0.5	0.3-0.5	0.3-0.5
	non-treatment film	Outside				0.3-0.5	0.3-0.5	0.3-0.5	0.3-0.5
	One side	Treated side				0.6-0.9	0.6-0.9	0.6-0.9	0.6-0.9
	treatment film	Non-treated side				0.3-0.5	0.3-0.5	0.3-0.5	0.3-0.5
	Both side	Inside				0.6-0.9	0.6-0.9	0.6-0.9	0.6-0.9
	treatment film	Outside				0.6-0.9	0.6-0.9	0.6-0.9	0.6-0.9
PUNCTURE RESISTANC	Ë		N	(min)	ASTM D 3763	8	8	9	10
FLEX-CRACKING		Holes/500 cm <sup>2</sup>	(max)	1000 cycles, -20 °C	20	20	30	40	
				1000 cycles, 25 °C	1	1	1	1	
HAZE		%	(max)	ASTM D-1003-61	2.5	2.5	2.5	2.5	
GLOSS (angle 60°)		%	(min)	ASTM D-2457	145	145	145	145	
WETTING TENSION 1	Both side	Inside	Dynes/cm	(min)	ASTM D-2578	-	-	-	-
	non-treatment film	Outside				-	-	-	-
	One side	Treated side				52	52	52	52
	treatment film	Non-treated side				-	-	-	-
	Both side	Inside				50	50	50	50
	treatment film	Outside				48	48	48	48
$O_2TR$	•		cm <sup>3</sup> /m <sup>2</sup> .day.bar	(max)	ASTM D-1434-82	25	25	20	20
					23°C, 0%RH, 1atm				

Remark; Minimum (min), ≥ mean the value specified must be greater than or equal to the min value.

 $\underset{\cdot}{\text{Maximum (max)}}, \leq \quad \text{mean the value specified must be less than or equal to the max value.}$ 

DESCRIPTION OF SUPPLY

PAPER CORE I.D. 76 mm (3 in.) 152mm (6in)

ROLL O.D. Max. 1000 mm WIDTH/LENGTH RANGE On request

#### OUR PRODUCT COMPLY WITH U.S.21 CFR F.D.A. REGULATION PART 177.1500

The data and information contained herein are given purely as a guide. Technical information is furnished solely as reference concerning the mentioned product without any obligation; end users shall consider suitability for their own adoption & usage. As conditions of use may vary and are beyond our control, A.J. Plast Public Company Limited undertakes no responsibility and liability for accuracy of any technical information and results obtained by usage of this product.

A.J. Plast Public Company Limited

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www.ajplast.co.th

<sup>&</sup>lt;sup>1</sup> The properties relate with shelf life of product and storage condition.

#### TECHNICAL DATA

	N	
_	IN	

TYPICAL PROPERTIIES			UNIT		TEST METHODS	TYPICAL VALUE			
THICKNESS		micron		Micrometer	14.5	15	20	25	
AVERAGE THICKNESS	VARIATION		%		ASTM E-252-78	± 3	± 3	± 3	± 3
YIELD			m²/kg		ASTM D4321	57.74 - 61.27	55.80 - 59.24	41.84 - 44.44	33.48 - 35.55
DENSITY			g/cm <sup>3</sup>		ASTM D-1505	1.16	1.16	1.16	1.16
TENSILE STRENGTH		MD	N/mm <sup>2</sup>	(min)	ASTM D-882	220	220	220	220
		TD				250	250	250	250
ELONGATION AT BREA	ıK	MD	%		ASTM D-882	90-150	90-150	90-150	90-150
		TD				90-130	90-130	90-130	90-130
DIMENSIONAL STABIL	ITY	MD	%	(max)	ASTM D-1204	2.0	2.0	2.0	2.0
		TD			160 °C, 5 minutes	2.0	2.0	2.0	2.0
COF 1	Both side	Inside			ASTM D-1894	0.3-0.5	0.3-0.5	0.3-0.5	0.3-0.5
	non-treatment film	Outside				0.3-0.5	0.3-0.5	0.3-0.5	0.3-0.5
	One side	Treated side				0.6-0.9	0.6-0.9	0.6-0.9	0.6-0.9
	treatment film	Non-treated side				0.3-0.5	0.3-0.5	0.3-0.5	0.3-0.5
	Both side	Inside				0.6-0.9	0.6-0.9	0.6-0.9	0.6-0.9
	treatment film	Outside				0.6-0.9	0.6-0.9	0.6-0.9	0.6-0.9
PUNCTURE RESISTANCE		N	(min)	ASTM D 3763	12	12	15	20	
FLEX-CRACKING		Holes/500 cm <sup>2</sup>	(max)	1000 cycles, -20 °C	50	50	50	50	
				1000 cycles, 25 °C	1	1	1	1	
HAZE		%	(max)	ASTM D-1003-61	2.5	2.5	2.5	2.5	
GLOSS (angle 60°)		%	(min)	ASTM D-2457	145	145	145	145	
WETTING TENSION 1	Both side	Inside	Dynes/cm	(min)	ASTM D-2578	-	-	-	-
	non-treatment film	Outside				-	-	-	-
	One side	Treated side				52	52	52	52
	treatment film	Non-treated side				-	-	-	-
	Both side	Inside				50	50	50	50
	treatment film	Outside				48	48	48	48
$O_2TR$	•	•	cm <sup>3</sup> /m <sup>2</sup> .day.bar	(max)	ASTM D-1434-82	20	20	18	15
				23°C, 0%RH, 1atm					

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