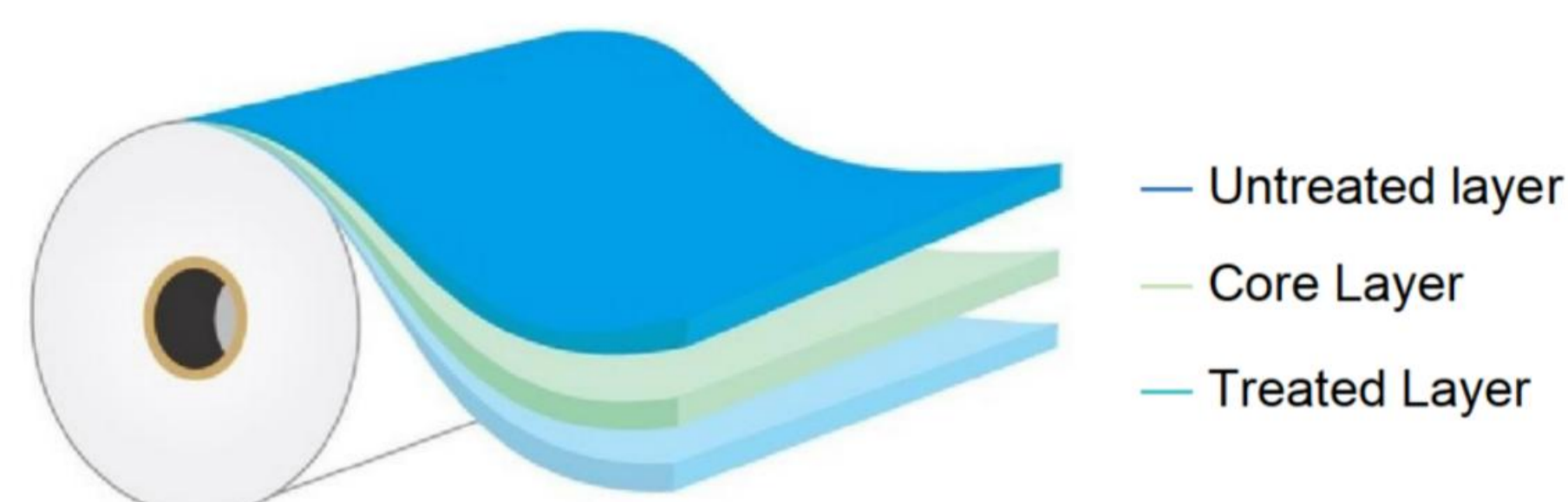


# BOPE (Printing Film)

## 11EP 25 $\mu$ m

### Technical Data

#### Structure



#### Description

High transparency and gloss with low haze; excellent ink and coating adhesion for precise print registration; long-lasting surface tension ( $\geq 38$  dyn/cm for 6+ months); strong puncture and tensile resistance at low temperatures; low heat shrinkage.

#### Application

Used as a print layer in flexible packaging for liquid daily products, grains, and pet food. Also serves as a substrate for barrier coatings like PVDC and PVA, and as a mono-layer film suitable for surface printing and hot-cut bag manufacturing.

Properties	Ref.	Units	ASTM #/ Test Method	11EP			
<b>Physical Data</b>							
Average Thickness		micron	D-374-C	25	30	35	40
		gauge		98	118	138	157
		mils		1.0	1.2	1.4	1.6
Thickness Variation		%( $\pm$ )		5			
Density		g/cc		0.935			
Average Substance		g/m		22.6	27.2	31.7	36.2
Surface tension(min)		dynes/cm	D-2578	$\geq 38$			
Kinetic COF	UT-UT		D-1894	0.4			
Yield		m <sup>2</sup> /Kg	D-4321	44.2	36.8	31.6	27.6
		in <sup>2</sup> /lb	D-4321	31075	25896	22196	19422
<b>Optical Data</b>							
Gloss(45)		gardner	D-2457	$\geq 90$			
Haze		%	D-1003	$\leq 4.0$			
<b>Mechanical Data</b>							
Tensile Strength	MD	kg/cm	D-882	80-120			
	TD			140-200			
Elongation at break	MD	%	D-882	200-260			
	TD			70-100			
Puncture resistance		N/mm	GB/T 37841	250-350			
Dart impact		g	GB/T 1410-2008	300-350			
<b>Thermal Data</b>							
Shrinkage (120°C/248F,5 min.)	MD	%	D-1204	1.5-4.0			
	TD			1.0-3.0			
HotTack Strength		g/15mm	@125°C @257°F	330			
<b>Barrier Data</b>							
MVTR(38°C,90%RH)		g/(m <sup>2</sup> •day)	F-1249	3.5~6.0		2.6~4.3	
MVTR(10B,90%RH)		g/100i/day		0.23~0.39		0.17~0.28	
Moisture permeability		g/(m <sup>2</sup> •day)	GB/T 9639.1	$\leq 8$			

The values given in the above table are typical performance data for reference only.  
If you have special requirements for product performance indexes, please communicate with business manager.

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