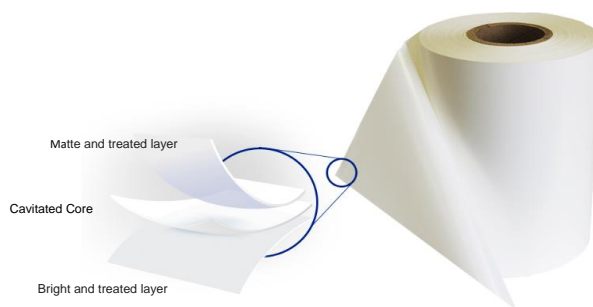


Main Characteristics

- Heat-sealable on glossy side from 112°C;
- Surface treatment on inner and/or outer layer;
- One side glossy and the other matte;
- High stiffness and low stretching;
- High-opacity cavitated film;
- Optimum performance in flexographic, rotogravure, digital, ultraviolet and thermal transfer printers.

Typical Applications

- General decorative applications such as In Mould Label.



Properties	Methodology	Unit	Range	40TBPIML	
Physical Properties					
Nominal Thickness	DIN 53370	µm	Target	53.3	
			Min.	50.7	
			Max.	56.0	
		Gauge	Target	210.0	
			Min.	199.5	
			Max.	220.5	
Unit Weight	ASTM D 4321	g/m ²	Target	40.0	
			Min.	38.0	
			Max.	42.0	
		lb/ream	Target	24.6	
			Min.	23.3	
			Max.	25.8	
Yield	ASTM D 4321	m ² /kg	Target	25.0	
			Min.	23.8	
			Max.	26.3	
		in ² /lb	Target	17577	
			Min.	18502	
			Max.	16740	
Surface Treatment	T	ASTM D 2578	dinas/cm	Target 40 Min. 38	
Coefficient of Friction	MAT	ASTM D 1894	-	Target 0.50	
				Min.	0.25
				Max.	0.70
Optical Properties					
Transmittance	ASTM D 1003	%	Target	19	
			Min.	13	
			Max.	27	
Gloss (45°)	MAT	ASTM D 2457	u.b.	Target 18	
				Min.	22
Mechanical Properties					
Tensile Strength	MD	ASTM D 882	N/mm ²	Target 80	
	TD			160	
	MD		lbf/in ²	Target 11603	
	TD			23206	
Elongation at Break	MD	ASTM D 882	%	Target 200	
	TD			45	
Shrinkage	MD	ASTM D 1204	%	Target 3	
	TD			1	
Sealing Range	BRI	ASTM F 88	°C	Target 112 - 130	
			°F	Target 234 - 266	
Sealing Strength	BRI	ASTM F 88	g/25mm or gf/in	Target 800	
				Min.	350
Barrier Properties					
TPVA 38°C / 90%UR	ASTM F 1249	g H ₂ O / (m ² .dia)	Target	NA	
WVTR 100°F / 90%RH	ASTM F 1249	g H ₂ O / (100in ² .day)	Target	NA	
TPO ₂ 23°C / 0%UR	ASTM D 3985	cm ³ O ₂ / (m ² .dia)	Target	NA	
OTR 73°F / 0%RH	ASTM D 3985	cm ³ O ₂ / (100in ² .day)	Target	NA	

1. Acronyms:

MD: Machine Direction | TD: Transverse Direction;
T: Treated Layer | MAT: Matte Layer | BRI: Bright Layer;
NA: Not Applicable.

2. Additional:

The restrained information in this datasheet represent typical data, and does not constitute genuine warranty liability as far as the product process and or application. In case of doubts or development of other thicknesses or applications, consult your dealer or send e-mail to: contato@polofilms.com.br.



Food Contact Regulations

OPAQUE Family films comply with Mercosul, ANVISA, FDA (Food and Drug Administration) and the European Community legislations for applications involving direct contact with food. Full details are provided in the Declaration of Conformity. Customers intending to use OPAQUE Family films for applications intended to come into contact with food should request a copy of that document from POLO Films. The MSDS (Material Safety Data Sheet), as well as the evaluation of conformity for contact with food from other legislations are also available upon request. Contact your dealer for any questions.

Storage and Transportation Terms & Conditions

All products are stored and transported in dry, covered and clean environments. It is recommended that storage and transportation take place at temperature around 30°C and 60% relative humidity.

If the temperature and humidity are not as recommended, the following issues may occur:

- Decreased level of surface treatment, leading to printing and/or lamination difficulties;
- Decreased film transparency;
- Too low CoF, making processing and machinability difficult.

BOPP films are recommended to be kept at operating room temperature for 24 hours before use.

Dimensional Specifications / Product Validity

Width	Minimum: 0 mm Maximum: 2 mm (from standard width)
Outer Diameter*	Minimum: 30 mm Maximum: 20 mm (from standard diameter)
Core	Minimum: 1 mm Maximum: 1 mm (from standard diameter)
Splices per roll	Maximum: 2
% of Splices per order	Maximum: 30%
Shelf Life (after production)	6 months

* For other dimensional information, consult your dealer.

Polo Films Nomenclature

Unit Weight or Thickness Technology Main Feature Specialty Sealing Treatment

40 TBPIML23

Unit Weight/ Thickness

Expressed in g/m². Used for white/opaque films;
Expressed in µm. Used for transparent, matte and metallized films.

Technology

T - Tenter | C - Cast.

Main Feature

BP - Heat-sealable opaque white for printing and/or lamination.

Specialty

IML - In Mould Label.

Sealing

0 - Not Sealable;
1 - Sealing on the Inner Face;
2 - Sealing on the Outer Face;
3 - Sealing on both Sides.

Treatment

0 - No Treatment;
1 - Treatment on Inner Face;
2 - Treatment on Outer Face;
3 - Treatment on both Sides.