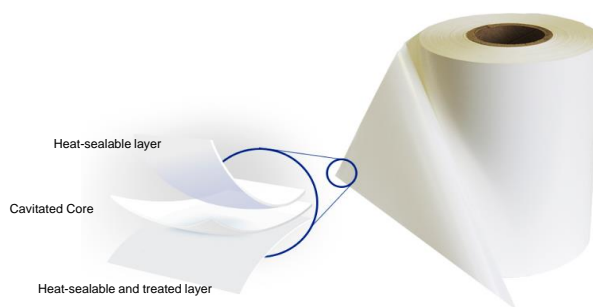


Main Characteristics

- Both sides heat-sealable, non-treated side from 105°C;
- Surface treatment on inner or outer layer;
- High gloss and whiteness on both sides;
- High-opacity cavitated film;
- Optimum performance in flexographic and rotogravure printing techniques.

Typical Applications

- Non-food flexible packaging: bags for gifts and general decorative applications.



Properties	Methodology	Unit	Range	17TBP GFT	19TBP GFT
Physical Properties					
Nominal Thickness	DIN 53370	µm	Target	22.7	25.3
			Min.	21.5	24.1
			Max.	23.8	26.6
		Gauge	Target	89.2	99.7
			Min.	84.8	94.8
			Max.	93.7	104.7
Unit Weight	ASTM D 4321	g/m ²	Target	17.0	19.0
			Min.	16.2	18.1
			Max.	17.9	20.0
		lb/ream	Target	10.4	11.7
			Min.	9.9	11.1
			Max.	11.0	12.3
Yield	ASTM D 4321	m ² /kg	Target	58.8	52.6
			Min.	56.0	50.1
			Max.	61.9	55.4
		in ² /lb	Target	41357	37004
			Min.	38388	35242
			Max.	43534	38951
Surface Treatment	T	ASTM D 2578	dinas/cm	Target	40
				Min.	38
Coefficient of Friction	NT	ASTM D 1894	-	Target	0.25
				Min.	0.15
				Max.	0.40
Optical Properties					
Transmittance	ASTM D 1003	%	Target	31	
			Min.	27	
			Max.	36	
Gloss (45°)	ASTM D 2457	u.b.	Target	85	
			Min.	77	
Mechanical Properties					
Tensile Strength	MD	ASTM D 882	N/mm ²	Target	80
	TD			Target	160
	MD		lbf/in ²	Target	11603
	TD			Target	23206
Elongation at Break	MD	ASTM D 882	%	Target	140
	TD			Target	30
Shrinkage	MD	ASTM D 1204	%	Target	3
	TD			Target	1
Sealing Range	NT	ASTM F 88	°C	Target	105 - 130
			°F	Target	221 - 266
Sealing Strength	NT	ASTM F 88	g/25mm or gf/in	Target	500
				Min.	350
Barrier Properties					
TPVA 38°C / 90%UR	ASTM F 1249	g H ₂ O / (m ² .dia)	Target	NA	NA
WVTR 100°F / 90%RH	ASTM F 1249	g H ₂ O / (100in ² .day)	Target	NA	NA
TPO ₂ 23°C / 0%UR	ASTM D 3985	cm ³ O ₂ / (m ² .dia)	Target	NA	NA
OTR 73°F / 0%RH	ASTM D 3985	cm ³ O ₂ / (100in ² .day)	Target	NA	NA

1. Acronyms:

MD: Machine Direction | TD: Transverse Direction;
NT: Non Treated Layer | T: Treated 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

17 TBP GFT 32

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

GFT - Decorative packaging.

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.