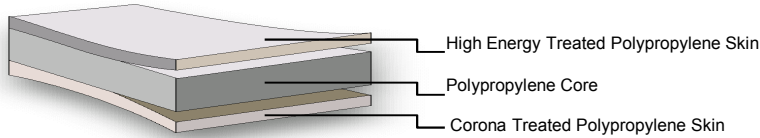


TL - Transparent Label

BIAXIALLY ORIENTED POLYPROPYLENE FILM
NON HEAT-SEALABLE



AMTOPP BOPP FILMS

Characteristics

- Non Heat-Sealable
- High Energy Flame treated for excellent ink adhesion and adhesive and extrusion lamination bonds
- Superior Optical Properties
- Excellent Flatness
- Very Good Stiffness

TECHNICAL DATA

PROPERTIES	TEST METHOD	UNITS	TYPICAL VALUES								
			TL15	TL18	TL20	TL22	TL25	TL30	TL35	TL40	TL50
THICKNESS	AmTopp	mil (μm)	0.59 (15)	0.70 (18)	0.79 (20)	0.87 (22)	0.97 (25)	1.19 (30)	1.38 (35)	1.56 (40)	1.97 (50)
YIELD	AmTopp	in ² /lb (m ² /kg)	51,800 (73.6)	44,000 (62.5)	38,700 (55.0)	35,000 (49.7)	31,400 (44.6)	25,700 (36.5)	22,200 (31.6)	19,600 (27.9)	15,600 (22.2)
TENSILE STRENGTH (MD)	ASTM D 882	lb/in ² (kg/cm ²)	20,000 (1,400)								
TENSILE STRENGTH (TD)	ASTM D 882	lb/in ² (kg/cm ²)	32,000 (2,250)								
ELONGATION AT BREAK (MD)	ASTM D 882	%	140								
ELONGATION AT BREAK (TD)	ASTM D 882	%	60								
HAZE	ASTM D 1003	%	1.5 - 3.0								
GLOSS (45 DEG)	ASTM D 2457	G.U.	90								
DIMENSIONAL STABILITY (MD)	266 °F, 5min (130° C, 5 min)	%	<5								
DIMENSIONAL STABILITY (TD)	266 °F, 5min (130° C, 5 min)	%	<3								
SURFACE ENERGY (High Energy Flame Side)	ASTM D 2578	dyne/cm	40								
SURFACE ENERGY (Corona Side)	ASTM D 2578	dyne/cm	36								

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Applications

- Single layer or laminated roll fed bottle labels

The above properties and results obtained refer to the average values of laboratory testing carried out on sample AmTopp product. AmTopp does not guarantee testing accuracy and makes no guarantee of product performance, safety or suitability, either expressed or implied, when used alone or in combination with other products. AmTopp strongly urges users to undertake independent testing in order to verify the suitability of the product for whatever intended use. AmTopp assumes no responsibility for any damage or injury sustained as a result of the use of its products.