



# Nahar

## POLY FILMS LTD.



<b>PRODUCT CODE TTR</b>	<b>TRANSPARENT NON HEAT SEALABLE BOTH SIDE TREATED APPLICATION : REVERSE PRINTING AND LAMINATION.</b>
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### TECHNICAL DATA SHEET BOPP

PROPERTIES	TEST METHOD	UNIT	POSITION	TTR 12	TTR 15	TTR 18	TTR 20
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#### PHYSICAL

Thickness	ASTM D 374	MICRON		12	15	18	20
Grammage	NTM	gm/m <sup>2</sup>		10.92	13.7	16.4	18.2
Yield	NTM	m <sup>2</sup> /kg		91.6	73.0	60.9	54.9
Thickness variation		%(±)		3			

#### SURFACE

Treatment Level (min)	ASTM D 2578	dyne/cm	Side1 side2	40 38
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#### OPTICAL

Haze	ASTM D 1003	%		1.5 - 2.0
Gloss	ASTM D 2457	-		90 - 95

#### MECHANICAL

Coefficient Of Friction	ASTM D 1894	Static		0.30 - 0.35
		Kinetic		0.25 - 0.30
Tensile strength	ASTM D 882	Kg/cm <sup>2</sup>	MD	1200 - 1500
			TD	2200 - 2600
Modulus	ASTM D 882	Kg/cm <sup>2</sup>	MD	15000 - 19000
			TD	26000 - 30000
Elongation	ASTM D 882	%	MD	140 - 180
			TD	40 - 80

#### THERMAL

Shrinkage at 120°C/ 5min	ASTM D 1204	%	MD	3.0 - 5.0
			TD	1.0 - 3.0

#### BARRIER

Water Vapour Transmission Rate	ASTM F 1249	GM/M <sup>2</sup> /24h	-	≤8.5	≤7.5	≤6.5	≤5.5
Oxygen Gas Transmission Rate	ASTM D 3985	cc/M <sup>2</sup> /24h	-	2200.0	2050	1850	1850

The values given in this technical datasheet are typical performance data and are believed to be accurate. These are given in good faith but it is for the customer to satisfy of the suitability for its own particular purpose. NAHAR POLY FILMS LTD. Suggests to the customer to confirm these values and product compatibility prior to their use and the company offers neither guarantee nor accept any responsibility for the fitness of the product for any other use.

Treatment value of BOPP films tend to decay over a period of time during transportation & storage conditions. Therefore it is recommended that the customer should check the treatment levels prior to processing and if a reduction is observed then online corona treatment, high adhesive GSM & a suitable primer may be applied.

NTM: NAHAR TEST METHOD, MD : MACHINE DIRECTION ,TD : TRANSVERSE DIRECTION