

PROVISIONAL

## TTIHR-N

BOPP FILMS

TRANSPARENT NON HEAT SEALABLE HEAT RESISTANT BOPP FILM BOTH SIDE  
CORONA TREATED FOR CONVERSION



Corona Treated HR Surface (Modified Layer)

OPP Modified Core layer

Corona Treated Glossy Surface



AVAILABLE  
CALIPERS

### DESCRIPTION

TTIHR-N is non heat sealable plain high gloss both side treated **BOPP** film with good heat resistant characteristics. Its treated surface is modified which can endure heat and shrinking during pack sealing; its core layer is also modified for better rigidity compared to conventional plain BOPP Films. Moreover its inside corona treated surface is specifically designed for printing and lamination during conversion

### PRODUCT FEATURES

- Endurance to heat and shrinking during sealing
- Easy Jaw release
- Good wetting tension for printing and lamination
- Suitable for food contact applications
- Water/oil/grease repellent
- Outstanding clarity and gloss

### APPLICATIONS

Can be used as outside web of laminates

- Bakery (Biscuits/cookie/crackers)
- Confectionery(chocolates/gum/sugar)
- Chips/tea/coffee/pasta
- Soaps and detergents
- Miscellaneous industrial and house hold applications

**TOPPAN SPECIALITY FILMS**

## PROVISIONAL

	PROPERTIES	POSITION	T15TTIHR-N	T18TTIHR-N	T20TTIHR-N	T25TTIHR-N	UNIT	METHOD
GENERAL	Nominal Thickness	-	15	18	20	25	μ	Internal Method
	Density	-	0.91	0.91	0.91	0.91	g/cc	Internal Method
	Grammage	-	13.6	16.4	18.2	22.7	g/m <sup>2</sup>	Internal Method
	Yield	-	73.3	61.0	54.9	44.0	m <sup>2</sup> /kg	Internal Method
OPTICAL	Haze	-		2.5			%	ASTM D 1003
	Gloss	-		95			GU	ASTM D 2457
SURFACE	COF	Film/Film		0.25			-	ASTM D 1894
		Film/Metal		0.20			-	ASTM D 1894
	Wetting tension	Both side		38*			dyne/cm	ASTM D 2578
MECHANICAL	Tensile Strength (at break)	- MD		1300			kg/cm <sup>2</sup>	ASTM D 882
		- TD		2500				
	Elongation (at break)	- MD		180			%	ASTM D 882
		- TD		60				
THERMAL	Elastic Modulus	- MD		20000			kg/cm <sup>2</sup>	ASTM D 882
		- TD		36000				
	Linear Shrinkage	- MD		3			%	ASTM D 1204
		- TD		1				

\* 36 dyne/cm guaranteed for 3 months from the invoice date in controlled ambient condition as per below storage guidelines.

The figures and above properties refer to typical values which are indicative only. Customers should verify the suitability of the film for its specific end use. Therefore this document will not represent a product specification.

#### GUIDELINES FOR STORAGE

Temperature should preferably be less than 30°C & humidity 55±5% in storage areas and material should be consumed within three months of receipt. OPP films should be allowed to reach operating room temperature 24 hours before use.

#### FOOD CONTACT

OPP films complies with the requirements of FDA, EC & REACH regulations. Specific documentation is available on request.

#### SAFETY

Compliance with industrial health and safety standards. OPP films do not present any significant danger to health and safety in the workplace, provided they are used for the intended purpose in accordance with conventional practices and that health & safety regulations are observed. Relevant guidelines can be found in our MSDS (available upon request).

#### CAUTIONS

- Film characteristics are maintained for six months from the date of invoicing except for wetting tension