

**TSIH**

BOPP FILMS

**TRANSPARENT HEATSEALABLE BOPP FILM FOR HOLOGRAPHIC CONVERSION****DESCRIPTION**

OPP-TSIH is transparent co-extruded heatsealable **BOPP** base film for holographic embossing applications. Its inside untreated skin is specifically modified for direct holographic embossing without primer coating & suitable for metallisation & for Good metal adhesion. It is recommended to Pretreat or Plasma embossed surface before metallisation. Other side Untreated heat-seal surface has good seal strength and sealing range which gives optimum performance on a wide range of packaging machines. TSIH gives brilliant prismatic effect for holographic applications.

**PRODUCT FEATURES**

- Excellent Adhesion of Holographic Coating on Embossable side & suitable for metallisation
- Excellent Holographic effect after Embossing
- Outstanding optical properties (high gloss, exceptional clarity and low haze)
- Excellent Mechanical Properties

**APPLICATIONS**

Base film for holographic applications for

- Brand protection
- Attractive packaging
- Security (almost impossible to counterfeit)

	PROPERTIES	POSITION	TS18IH	TS20IH	UNIT	METHOD
GENERAL	Nominal Thickness	-	18	20	μ	Internal Method
	Density	-	0.91	0.91	g/cc	Internal Method
	Grammage	-	16.4	18.2	g/m <sup>2</sup>	Internal Method
	Yield	-	61.0	54.9	m <sup>2</sup> /kg	Internal Method
OPTICAL	Haze	-	2		%	ASTM D 1003
	Gloss	-	90		GU	ASTM D 2457
SURFACE	COF	Film/Metal	0.40		-	ASTM D 1894
MECHANICAL	Tensile Strength (at break)	- MD - TD	1200 2600		kg/cm <sup>2</sup>	ASTM D 882
	Elongation (at break)	- MD - TD	200 70		%	ASTM D 882
	Elastic Modulus	- MD - TD	18000 28000		kg/cm <sup>2</sup>	ASTM D 882
	Linear Shrinkage	- MD - TD	4 2		% %	ASTM D 1204
THERMAL	Heat Seal Range	-	115-145		°C	Internal Method
	Heat Seal Strength	-	300		g/25mm	Internal Method (130°C/1sec/30psi)

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