## **TOPPAN**

## TSTTIFK BOPP FILMS

# TRANSPARENT HEAT SEALABLE BOPP FOR COLD ANTI FOGGING APPLICATIONS WITH EXTENDED SHELF LIFE



#### **DESCRIPTION**

TSTTIFK is transparent co-extruded both side heatsealable both side corona treated anti fogging **BOPP** film. It is one side corona treated heat seal surface for printing and other side corona treated heat seal surface is specifically designed to exhibit excellent cold antifogging effect with extended shelf life in comparison to traditional antifog BOPP films during refrigeration and at room temperature.

#### **PRODUCT FEATURES**

- Excellent cold anti fogging effect
- Extended shelf life
- Good performance on HFFS & VFFS machines
- Good printability and suitable for lamination with other substrates
- Good optical properties
- Good stiffness and mechanical properties

#### **APPLICATIONS**

Can be used as a single web or in laminate structures

- Fresh cut vegetables, fruits and salads etc
- Meat packaging
- Flower wrapping

#### **PROCESSING METHOD**

- TSTTIFK ANTIFOG SIDE INSIDE AND OTHER SIDE PRINTABLE
- TSTTOFK ANTIFOG SIDE OUTSIDE AND OTHER SIDE PRINTABLE

### TOPPAN SPECIALITY FILMS

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	PROPERTIES	POSITION	TS25TTIFK	TS30TTIFK	UNIT	METHOD
GENERAL	Nominal Thickness Density Grammage Yield	- - -	25 0.91 22.75 44.0	30 0.91 27.3 36.6	μ g/cc g/m² m²/kg	Internal Method Internal Method Internal Method Internal Method
URFACEOPTICAL	Haze Gloss  COF (Dynamic) Wetting tension	- - Film/Film -	4.5 83 0.30 38*	4.5 83 0.30 38*	% GU - Dyne/cm	ASTM D 1003 ASTM D 2457 ASTM D 1894 ASTM D 2578
MECHANICAL	Tensile Strength (at break) Elongation (at break)	- MD - TD - MD - TD	1100 2500 210 60	1100 2500 210 60	kg/cm²	ASTM D 882
	Elastic Modulus	- MD - TD	18000 28000	18000 28000	kg/cm²	ASTM D 882
EFFECT THERMAL	Linear Shrinkage (Max) Heat Seal Range	- MD - TD -	4 2 120-145	4 2 120-145	% ℃	ASTM D 1204 Internal Method
	Seal Strength	AF side Other side	600 350	600 350	g/25mm	Internal Method (130°C/1sec/30psi)
	Cold Antifog	-	E	E	Rating A TO E A - Poor E -Excellent	Internal Method (4°C/7 days)

<sup>\* 38</sup> dyne/cm guaranteed for 6 months from the invoice date in controlled ambient condition as mentioned in 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  $30^{\circ}$ C & humidity  $55\pm5\%$  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