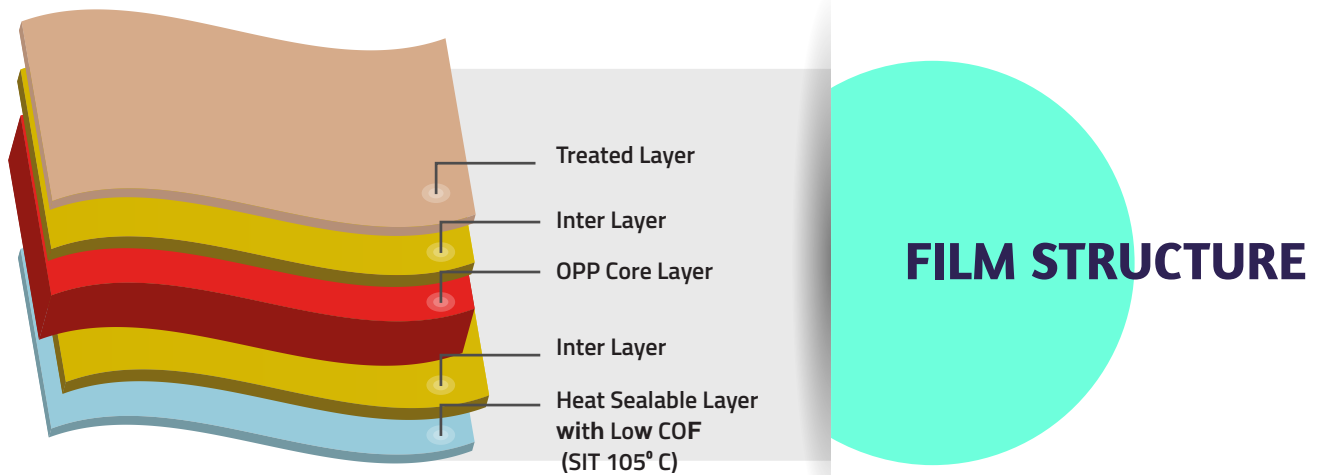


## B-TSL

### Standard Transparent Heat Sealable Low COF BOPP Film

B-TSL is a both side heat sealable & one side treated film with standard SIT and low friction.



## THE BIG DIFFERENTIATORS



### Optimal COF

Superior runnability at high speed both during the lamination process as well as on FFS m/c.



### Fine Optics

Aesthetically appealing look.



### Optimized Seal Functionality

Improved lap seal strength.



### Good Machinability

Excellent runnability.

## KEY FEATURES:

- Good antistatic & slip properties
- Good optics
- Good machinability

## APPLICATIONS:

- Bakery (biscuits, cookies & crackers)
- Snacks
- Confectionaries
- Biscuit bundle wrap

PROPERTIES		TEST METHOD (ASTM)	UNIT	TYPICAL VALUES									
THICKNESS		Internal	Micron	15	18	20	23	25	30	35	40	48	50
			(Gauge)	60	72	80	92	100	120	140	160	192	200
FILM DENSITY		D-1505	gm/cc	0.91									
GRAMMAGE		Internal	gm/m <sup>2</sup>	13.7	16.4	18.2	20.9	22.7	27.3	31.8	36.4	43.7	45.5
YIELD		Internal	m <sup>2</sup> /kg	73.1	61.1	54.9	47.8	44.0	36.6	31.4	27.5	22.9	22.0
			in <sup>2</sup> /lb	51389	42953	38594	33603	30932	25730	22074	19332	16098	15466
TREATMENT LEVEL		D-2578	dyne/cm	38									
COEFF OF FRICTION (UTR/UTR)	DYNAMIC	D-1894	-	0.22±0.03									
HAZE		D-1003	%	2.0	2.2	2.4	2.6	2.7	2.9	3.2	3.4	3.6	3.8
GLOSS (at 45°)		D-2457	Unit	88	86	85	85	85	82	82	80	78	78
TENSILE STRENGTH AT BREAK	MD*	D-882	kg/cm <sup>2</sup>	1200									
	TD*			2500									
	MD*		(KPsi)	17.0									
	TD*			35.5									
ELONGATION AT BREAK	MD*	D-882	%	200									
	TD*			60									
LINEAR SHRINKAGE (Max) (5 Minutes at 130°C)	MD*	D-1204	%	6.0									
	TD*			3.0									
HEAT SEAL INITIATION TEMPERATURE		Internal	°C	105									
HEAT SEAL STRENGTH	(Min.)	Internal	gm/25mm	300	325	350	350	375	400	425	450	450	450
WATER VAPOUR TRANSMISSION RATE (38°C & 90% RH)		F-1249	gm/m <sup>2</sup> /day	7.0	6.8	6.5	6.3	6.0	5.7	5.5	5.0	4.5	4.5
			(gm/100 in <sup>2</sup> /day)	0.45	0.44	0.42	0.41	0.39	0.37	0.35	0.32	0.29	0.29
OXYGEN TRANSMISSION RATE (23°C & 0% RH)		D-3985	cc/m <sup>2</sup> /day	2000	1800	1800	1800	1700	1600	1500	1300	1200	1200
			(cc/100 in <sup>2</sup> /day)	129	116	116	116	110	103	97	84	77	77

Ref no QAD UFLI S/21 – B 51/1

\*MD = MACHINE DIRECTION \*TD = TRANSVERSE DIRECTION

## STORAGE & HANDLING

FLEXOPP™ does not require special storage conditions. It is recommended to storage below 30°C in order to avoid any deterioration of the film surface properties. It is advisable to use the material on FIFO basis. The film should be kept at operating environment for 24 hours before processing. FLEXOPP™ is best suitable for use within 6 months from date of dispatch.

## FOOD CONTACT

FLEXOPP™ complies with EC and FDA regulations. Specific document and MSDS are available on request.

## DISCLAIMER

It is the responsibility of our customers to determine that their use of our products is safe, lawful, and technically suitable in their intended applications. The technical data sheets are provided for discussion purposes only. The customer may not rely on the data provided for any manufacturing purpose. The values provided in the technical data sheet represent typical values based on the best of our knowledge as of the date when the data was compiled. The data is offered solely to provide possible suggestions for your own experimentation and not as a guarantee for the material supplied. The user is solely responsible for the end use of the product and needs to perform their own tests to confirm the product suitability/compatibility in all respects. Flex provides no warranty and accepts no liability for any loss or fitness of the product for any specific purpose based on the information contained in the technical data sheets. Flex reserves the right to change the technical data sheet at any time without prior notice.

**FlexFilms**

Manufacturing Facilities at  
India | UAE | Poland | Egypt | Mexico |  
USA | Hungary | Russia | Nigeria  
enquiry@flexfilm.com  
www.flexfilm.com

\*\*TDS issued on 22-01-2022. All previous version of this grade are invalid.