

**Technical Data Sheet**
**(BIAXIALLY ORIENTED POLYPROPYLENE FILM)**
**Product Description:**

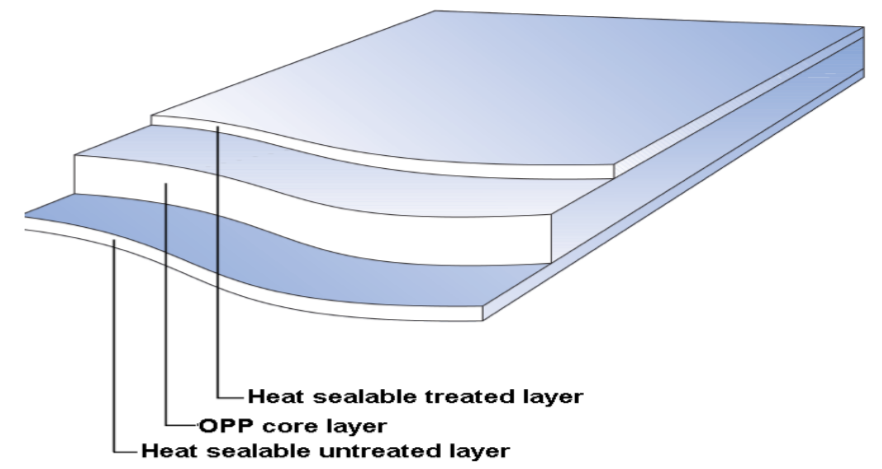
B-TBO is a transparent film  
Both side sealable and one side treated

**Application:**

-High speed bundle over wrapping  
-Box overwrapping

**Key Features:**

-Good optics  
-Consistent slip  
-High seal strength & wide seal range  
-Good stiffness  
-Excellent Machinability

**Film Structure**


PROPERTIES	TEST METHOD (ASTM)	UNIT	TYPICAL VALUES				
			30	35	40	45	50
THICKNESS	Internal	Micron	30	35	40	45	50
		(Gauge)	120	140	160	180	200
FILM DENSITY	D-1505	gm/cc	0.91	0.91	0.91	0.91	0.91
GRAMMAGE	Internal	gm/m <sup>2</sup>	27.3	31.85	36.4	40.95	45.5
YIELD	Internal	m <sup>2</sup> /kg	36.63	31.39	27.47	24.42	21.97
		in <sup>2</sup> /lb	25807	22115	19354	17205	15479
TREATMENT LEVEL	D-2578	dyne/cm	38	38	38	38	38
COEFF OF FRICTION	DYNAMIC D-1894	-	0.3	0.3	0.3	0.3	0.3
HAZE	D-1003	%	1.7	1.7	1.8	1.9	2
GLOSS	D-2457	Unit	85	85	82	82	82
TENSILE STRENGTH AT BREAK	D-882	MD*	1475	1475	1475	1475	1475
		TD*	2400	2400	2400	2400	2400
		MD*	20.9	20.9	20.9	20.9	20.9
		TD*	34	34	34	34	34
ELONGATION AT BREAK	D-882	MD	160	160	160	160	160
		TD	60	60	60	60	60
		MD	23100	23100	23100	23100	23100
		TD	30000	30000	30000	30000	30000
MODULUS OF ELASTICITY	D-882	MD	328	328	328	328	328
		TD	426.0	426.0	426.0	426.0	426.0
		MD	328	328	328	328	328
		TD	426.0	426.0	426.0	426.0	426.0
LINEAR SHRINKAGE (5 Minute at 130°C)	D-1204	MD	<5.0				
		TD	<3.0				
HEAT SEAL INITIATION TEMPERATURE	Internal	°C	105	105	105	105	105
HEAT SEAL STRENGTH (Min.)	Internal	gm/25mm	600	650	650	700	700
W.V.T.R.(38°C & 90%RH)	F-1249	gm/m <sup>2</sup> /day	5.7	5.5	5	4.7	4.5
		(gm/100in <sup>2</sup> /day)	0.37	0.35	0.32	0.3	0.29
O.T.R. (23°C & 0%RH)	D-3985	cc/m <sup>2</sup> /day	1600	1500	1300	1200	1200
		(cc/100in <sup>2</sup> /day)	103	97	84	77	77

Ref no QAD UFLI S/14 - B16/2

\*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 up to 3 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 customer to determine that their use of our product(s) is safe, lawful, and technically suitable in their intended applications. The Values given in the technical data sheet represent typical values based on the best of our knowledge as on date when the data was compiled. It 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 Gives no warranty or accept liability for any loss and fitness of the product for any specific purpose. Flex reserves the right to change the technical data sheet at any time for enhancing the quality of the products without prior information

**\*\*TDS issued on 11-02-2015.All previous version of this grade are invalid.**

Website: [www.flexfilm.com](http://www.flexfilm.com)