

**Technical Data Sheet****(METALLIZED POLYESTER FILM)****Product Description:**

FLEXMETPROTECT™ F-LLP-M is a metallized polyester having metallization on functional side layer and other side Untreated standard surface.

**Key Features:**

High Metal Bond Strength  
High Heat Resistant

**Applications :**

Liquid Packaging  
Sandwich Lamination  
Pasteurization

FLEXMETPROTECT™ F-LLP-M grade of film is metallized polyester film having excellent barrier properties. Metallisation on specially modified surface provides improved metal anchorage. The film is having high metal bond strength (>600 gm/25 mm) that gives higher laminate bond strength so as to prevent delamination after filling. Film is specially designed for liquid/paste packaging application.

PROPERTIES	TEST METHOD (ASTM)	UNIT	TYPICAL VALUE	
			12	
OPTICAL DENSITY*** (SD) (TOLERANCE : +/- 5%) *** Customer to specify the value of OD required based on the application.		-	SD	2.2
THICKNESS	Internal	Micron (Gauge)		12 48
FILM DENSITY	D-1505	gm/cc		1.4
GRAMMAGE	Internal	gm/m <sup>2</sup>		16.8
YIELD	Internal	m <sup>2</sup> /kg in <sup>2</sup> /lb		59.52 41934
COEFF OF KINETIC FRICTION	D-1894	-		0.7
TENSILE STRENGTH AT BREAK	D-882	Kg/cm <sup>2</sup>	MD*	1700
			TD*	1900
		(Psi)	MD*	24200
			TD*	27000
ELONGATION AT BREAK	D-882	%	MD	100
			TD	80
LINEAR SHRINKAGE (Max.) (AT 105 <sup>o</sup> C/30 Minute)	D-1204	%	MD	1.5
			TD	0.6
W.V.T.R.(38 <sup>o</sup> C & 90%RH)	F-1249	gm/m <sup>2</sup> /day (gm/100in <sup>2</sup> /day)		1.0 0.06
O.T.R. (23 <sup>o</sup> C & 0%RH)	D-3985	cc/m <sup>2</sup> /day (cc/100in <sup>2</sup> /day)		1.1 0.07
METAL BOND STRENGTH	Internal	gm/25mm		> 600

Ref no QAD UFLI S/14 - MF 9/1

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

# MI = Metal wound inside, MO = Metal wound out side

SD = Standard Density

**STORAGE & HANDLING**

FLEXMETPROTECT™ need to be stored in a closed warehouse and should not be exposed to direct sunlight or light sources and from humidity. It is recommended to store below 35° C in dry place.FLEXMETPROTECT™ is suitable for use within 6 months from date of manufacturing, only if stored in recommended condition.

**FOOD CONTACT**

FLEXMETPROTECT™ 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)