



TECHNICAL DATA SHEET

( METALLIZED POLYESTER FILM)

**Product Description:**

Base polyester having one side chemically coated and other side Untreated or Corona treated.It can be metallized on either side based on customer requirements.

**Key Features:**

Excellent Barrier properties  
High Metal Bond Strength  
Good Machinability & handling properties

**Applications:**

Flexible Packaging  
Lamination  
Hot fill application up to 100°C.

FLEXMETPROTECT™ F-UPF-M grade of film is metallised polyester film. The film have superior gloss when metallized on optically clear base film and further improved when metallized on extra clear base film.The film is one side proprietary coated layer whereas other side is either plain or corona treated . Film is available in optical density ranging from 2.0 to 3.0.The wide range of optical densities give choice to the customer to use the product for diverse range of applications. The metallization is available on plain side (MU),corona treated side (MT) or on coated side (MC), as specified by the customer. The bond between the metal & film is 180-200gm/25mm (when metallized on plain side),250-300 gms/25mm (when metallized on corona side) & 600+gm/25mm (when metallized on chemically coated side) , Film is suitable for flexible packaging including hot fill application up to 100°C.

PROPERTIES		TEST METHOD (ASTM)	UNIT	TYPICAL VALUE											
				8	9	10	12	15	19	23	36	50			
OPTICAL DENSITY** (TOLERANCE : +/- 5%)		Gretag	-	SD 2.2 - Normal Packaging Application											
				HD 2.5 - High Barrier Application											
				VHD 2.8 - Special Application											
THICKNESS		Internal	Micron (Gauge)	8	9	10	12	15	19	23	36	50			
FILM DENSITY		D-1505	gm/cc	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4			
GRAMMAGE		Internal	gm/m <sup>2</sup>	11.2	12.6	14.0	16.8	21.0	26.6	32.2	50.4	70.0			
YIELD		Internal	m <sup>2</sup> /kg in <sup>2</sup> /lb	89.28	79.36	71.42	59.52	47.62	37.59	31.05	19.84	14.28			
COEFF OF KINETIC FRICTION		D-1894	-	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7			
METAL WOUND				# MI/MO	# MI/MO	# MI/MO	# MI/MO	# MI/MO	# MI/MO	# MI/MO	# MI/MO	# MI/MO	# MI/MO	# MI/MO	
TENSILE STRENGTH AT BREAK	MD*	D-882	Kg/cm <sup>2</sup>	1900	1900	1900	1900	1900	1900	1900	1900	1750	1750		
	TD*			2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	
	MD*		(Psi)	27000	27000	27000	27000	27000	27000	27000	27000	27000	25000	25000	
	TD*			28500	28500	28500	28500	28500	28500	28500	28500	28500	28500	28500	
ELONGATION AT BREAK	MD	D-882	%	90	90	100	105	105	110	115	120	125			
	TD			80	80	80	85	85	85	85	90	90	90		
LINEAR SHRINKAGE (Max.) (AT 105°C/30 Minute)	MD	D-1204	%	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		
	TD			0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	
W.V.T.R.(38°C & 90%RH)		F-1249	gm/m <sup>2</sup> /day (gm/100in <sup>2</sup> /day)	SD			HD			VHD					
				1.0			0.6			0.4					
				0.06			0.04			0.03					
O.T.R. (23°C & 0%RH)		D-3985	cc/m <sup>2</sup> /day (cc/100in <sup>2</sup> /day)	SD			HD			VHD					
				1.1			1.0			0.8					
				0.07			0.06			0.05					

Ref no QAD UFLI S/13 - MF14/1

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

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

SD- Standard Density, HD - High Density, VHD - Very High 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.