

# F-UPF-M

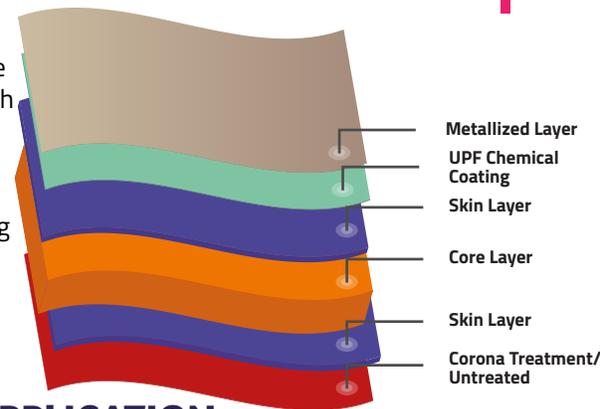
## METALLIZED UPF CHEMICAL COATED FILM

F-UPF-M is a metallized BOPET film. The film is UPF Chemical Coated on one surface and either Untreated or Corona Treated on the other surface. The film is available with optical densities ranging from 2.2 to 2.8 giving the customer the ability to use for a diverse range of applications. The metallization is available on the UPF Chemical Coated surface (MC) giving a bond strength between the metal and the film a minimum of 600gm/25mm. This film grade is suitable for flexible packaging including hot fill applications up to 100°C (212°F).

### KEY FEATURES:

- Excellent barrier properties
- High metal bond strength
- Good machinability & handling properties

## FILM STRUCTURE



### APPLICATION:

- Flexible packaging
- Lamination
- Hot fill applications up to 100°C (212°F)

PROPERTIES		TEST METHOD	UNIT	TYPICAL VALUES											
OPTICAL DENSITY*** (TOLERANCE: +/- 5%) (***Customer to specify the OD value as per their specification.)				Standard Density (SD) 2.2 - Barrier Packaging Application High Density (HD) 2.5 - High Barrier Application Very High Density (VHD) 2.8 - Special Application											
THICKNESS		Internal	Micron	8	9	10	11	12	15	19	23	36	50		
			(Gauge)	32	36	40	44	48	60	76	92	144	200		
YIELD		Internal	m <sup>2</sup> / kg	89.28	79.36	71.42	64.93	59.52	47.62	37.59	31.05	19.84	14.28		
			in <sup>2</sup> /lb	62901	55912	50318	45745	41934	33550	26483	21876	13978	10060		
SURFACE TENSION (min) # ★ (UPF Chemical Coated surface) (Corona Treated surface)		ASTM D-2578	dyne/cm	48 52											
COF (max) One side to the other side		ASTM D-1894	-	0.70											
TENSILE STRENGTH AT BREAK (min)		ASTM D-882	kg/cm <sup>2</sup>	MD	1900	1900	1900	1900	1900	1900	1900	1900	1750	1750	
				TD	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
			(Psi)	MD	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 (min)		ASTM D-882	%	MD	90	90	100	100	105	105	110	115	120	125	
				TD	80	80	80	85	85	85	85	90	90	95	
LINEAR SHRINKAGE (max) (30 Minute at 105°C)		ASTM D-1204	%	1.5											
				0.6											
MVTR (38°C & 90%RH) (typical)		ASTM F-1249	gm/m <sup>2</sup> /day (gm/100in <sup>2</sup> /day)	SD			HD			VHD					
				1.0			0.6			0.4					
OTR (23°C & 0%RH) (typical)		ASTM D-3985	cc/m <sup>2</sup> /day (cc/100in <sup>2</sup> /day)	1.1			1.0			0.8					
				0.07			0.06			0.05					

\* This dyne value is applicable only for NAFTA, SA, and Poland manufacturing plants.

# The inherent surface tension of the untreated side of any PET film is a minimum of 42 dyne/cm.

### STORAGE & HANDLING

FLEXMETPROTECT™ needs to be stored in a warehouse below 35°C (95°F) and should not be exposed to direct sunlight, bright light sources, or high humidity. If the material is stored in the recommended conditions, FLEXMETPROTECT™ is suitable for use within 180 days from the date of shipment.

### FOOD CONTACT

FLEXMETPROTECT™ complies with EU and FDA regulations on plastic materials used for food grade application. Specific documents and SDS are available on request.

### DISCLAIMER

It is the responsibility of our customer 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.