

FILM STRUCTURE

Untreated / Corona

Treatment

Skin Layer

Core Layer

Skin Layer Modified Chemical Coating Metallized Layer

F-HMB-M METALLIZED CHEMICAL COATED FILM

Base polyester is a specialized design for high adhesion when metallized. F-HMB-M is a metallized BOPET film. The film is Modified 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 Modified Chemical Coated surface (MC) giving an extremely high bond strength between the metal and the film a minimum of 1200gm/25mm.

KEY FEATURES:

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

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 - Speci							- Special	al application		
THICKNESS		Internal	Micron	8	9	10	12	15	19	23	36	50
			(Gauge)	32	36	40	48	60	76	92	144	200
YIELD		Internal	m² / kg	89.28	79.36	71.42	59.52	47.62	37.59	31.05	19.84	14.28
			in² /lb	62901	55912	50318	41934	33550	26483	21876	13978	10060
SURFACE TENSION (min) # ★ (Modified Chemical Coated surface) (Corona Treated surface)		ASTM D-2578	dyne/cm	42								
				52								
COF (max) One side to the other side		ASTM D-1894	-	0.70								
TENSILE STRENGTH AT BREAK (min)	MD	- ASTM D-882	kg/cm²	1900	1900	1900	1900	1900	1900	1900	1750	1750
	TD			2000	2000	2000	2000	2000	2000	2000	2000	2000
	MD		(Psi)	27000	27000	27000	27000	27000	27000	27000	25000	25000
	TD			28500	28500	28500	28500	28500	28500	28500	28500	28500
ELONGATION AT BREAK (min)	MD	ASTM D-882	%	90	90	100	105	105	110	115	120	125
	TD			80	80	80	85	85	85	90	90	95
LINEAR SHRINKAGE (max)	MD	ASTM D-1204	%	1.5								
(30 Minute at 105℃)	TD			0.6								
MVTR (38°C & 50% RH) (typical)		ASTM F-1249	gm/m²/day	<u>SD</u> 1.0			HD 0.6			VHD		
			(gm/100 in²/day)	0.06			0.04			0.4		
OTR (23°C & 0% RH) (typical)		ASTM D-3985	cc/m²/day	1.1			1.0			0.03		
			(cc/100 in ² /day)	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

FLEXMETPROTECTTM 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, FLEXMETPROTECTTM is suitable for use within 180 days from the date of shipment.

FOOD CONTACT

FLEXMETPROTECTTM 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 sheet are technical data sheet at any time without prior notice.

FlexFilms

Ref. No: QAD UFLI S/20 - MF11/1 ** TDS issued on 01-04-2020. All previous version of this grade are invalid. Manufacturing Facilities at India | UAE | Poland | Egypt | Mexico | USA | Hungary | Russia | Nigeria ⊠ enquiry@flexfilm.com ⊕ www.flexfilm.com