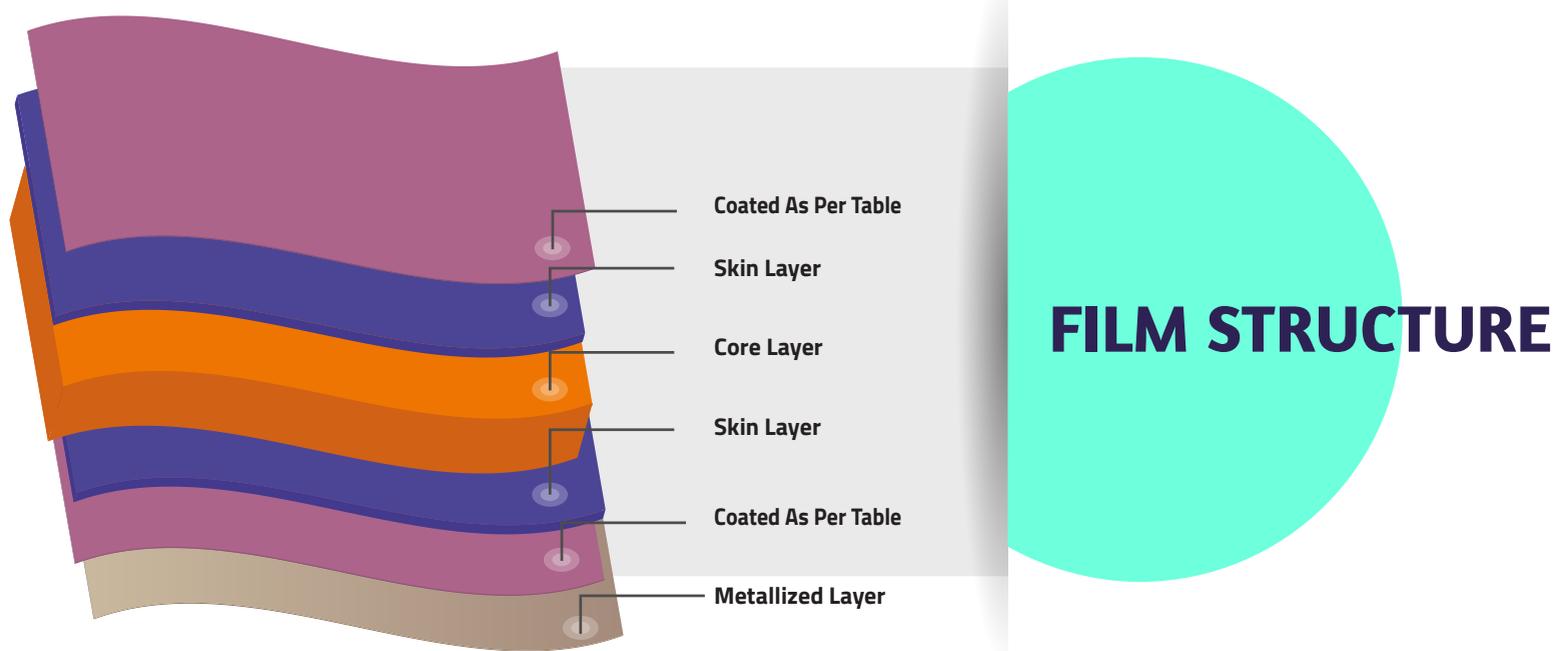


# F-DSC-AP-M, F-DSC-CA-M, F-DSC-CC-M, F-DSC-CP-M, F-DSC-PM-M, F-DSC-PP-M

## METALLIZED-BOTH SIDES COATED FILMS

Metallized Both-Sides-Coated Films are double coated BOPET films with various options (see grade table). The metallization is available on either side as specified by the customer. These films are available in optical densities ranging from 2.2 to 2.8; this wide range gives options to the customer to use the product for a diverse range of applications. The bond between the metal and film is a minimum of 500 gm/25mm for a Chemical Coated surface, 600 gm/25mm for a UPF Chemical Coated surface, and 1200 gm/25mm for a Modified Chemical Coated surface.



### KEY FEATURES:

- Excellent gloss
- Good barrier properties
- Excellent machinability & handling properties
- Chemical & Primer Coated surfaces provide excellent adhesion with inks & various adhesives

### APPLICATION:

- Applications vary by coating type.
- See grade table

| FLEXMETPROTECT™ GRADE   | ONE SURFACE       | OTHER SURFACE     | KEY FEATURES / APPLICATIONS      |  |       |       |       |       |       | METALIZATION SIDE   |
|---|-------------------|-------------------|----------------------------------|--|-------|-------|-------|-------|-------|---|
| F-DSC-AP-M  | UPF CHEMICAL      | STANDARD PRIMER   | Hot fill applications            |  |       |       |       |       |       | Metallization will be on either the Chemical, Modified Chemical, or UPF Chemical Coated surface.<br><b>TO BE SPECIFIED BY THE CUSTOMER.</b> |
| F-DSC-CA-M  | CHEMICAL          | STANDARD PRIMER   | Form, Fill, & Seal Structure     |  |       |       |       |       |       |   |
| F-DSC-CC-M  | CHEMICAL          | CHEMICAL          | Form, Fill, & Seal Structure     |  |       |       |       |       |       |   |
| F-DSC-CP-M  | CHEMICAL          | UPF CHEMICAL      | Form, Fill, & Seal Structure     |  |       |       |       |       |       |   |
| F-DSC-HH-M  | MODIFIED CHEMICAL | MODIFIED CHEMICAL | Hot fill applications up to 80°C |  |       |       |       |       |       |   |
| F-DSC-PM-M  | UPF CHEMICAL      | MODIFIED PRIMER   | Form, Fill, & Seal Structure     |  |       |       |       |       |       |   |
| PROPERTIES  | TEST METHOD       |                   | UNIT                             | TYPICAL VALUES   |       |       |       |       |       |   |
| OPTICAL DENSITY***<br>(TOLERANCE: +/- 5%)<br>(***Customer to specify the OD value as per their specification.)  |                   |                   |                                  | Standard Density (SD) 2.2 - Barrier Packaging Application<br>High Density (HD) 2.5 - High Barrier Application<br>Very High Density (VHD) 2.8 - Special Application |       |       |       |       |       |   |
| THICKNESS   | Internal          |                   | Micron                           | 10   | 12    | 15    | 19    | 23    | 36    | 50  |
|   |                   |                   | (Gauge)                          | 40   | 48    | 60    | 76    | 92    | 144   | 200   |
| YIELD   | Internal          |                   | m <sup>2</sup> / kg              | 71.42  | 59.52 | 47.62 | 37.59 | 31.05 | 19.84 | 14.28   |
|   |                   |                   | in <sup>2</sup> /lb              | 50318  | 41934 | 33550 | 26483 | 21876 | 13978 | 10060   |
| SURFACE TENSION (min) ★<br>(Standard Primer Coated surface)<br>(Modified Primer Coated surface)<br>(Chemical Coated surface)<br>(UPF Chemical Coated surface)<br>(Modified Chemical Coated surface) | ASTM D-2578       |                   | dyne/cm                          | 40   |       |       |       |       |       |   |
|   |                   |                   |                                  | 52   |       |       |       |       |       |   |
|   |                   |                   |                                  | 60   |       |       |       |       |       |   |
|   |                   |                   |                                  | 48   |       |       |       |       |       |   |
|   |                   |                   |                                  | 42   |       |       |       |       |       |   |
| COF (max)<br>(One side to the other side)   | ASTM D-1894       |                   | -                                | 0.70   |       |       |       |       |       |   |
| TENSILE STRENGTH AT BREAK (min)   | MD                | ASTM D-882        | kg/cm <sup>2</sup>               | 1900   | 1900  | 1900  | 1900  | 1900  | 1750  | 1750  |
|   | TD                |                   |                                  | 2000   | 2000  | 2000  | 2000  | 2000  | 2000  | 2000  |
|   | MD                |                   | (Psi)                            | 27000  | 27000 | 27000 | 27000 | 27000 | 25000 | 25000   |
|   | TD                |                   |                                  | 28500  | 28500 | 28500 | 28500 | 28500 | 28500 | 28500   |
| ELONGATION AT BREAK (min)   | MD                | ASTM D-882        | %                                | 100  | 105   | 105   | 110   | 115   | 120   | 125   |
|   | TD                |                   |                                  | 80   | 85    | 85    | 85    | 90    | 90    | 95  |
| LINEAR SHRINKAGE (max)<br>(30 Minute at 105°C)  | MD                | ASTM D-1204       | %                                | 1.5  |       |       |       |       |       |   |
|   | TD                |                   |                                  | 0.6  |       |       |       |       |       |   |
| MVTR (38°C & 90% RH) (typical)  |                   | ASTM F-1249       | gm/m <sup>2</sup> /day           | SD   | HD    |       |       | VHD   |       |   |
|   |                   |                   | (gm/100 in <sup>2</sup> /day)    | 1.0  | 0.6   |       |       | 0.4   |       |   |
| OTR (23°C & 0% RH) (typical)  |                   | ASTM D-3985       | cc/m <sup>2</sup> /day           | 1.1  | 1.0   |       |       | 0.8   |       |   |
|   |                   |                   | (cc/100 in <sup>2</sup> /day)    | 0.07   | 0.06  |       |       | 0.05  |       |   |

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

### 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.