

Product Data Bulletin

MPI 2010 & 2012 Calendered Vinyl Film (Revision 5)

Date: 12/14/06

Description:

Avery Dennison™ MPI 2010 and MPI 2012 Calendered Vinyl film is a flexible, matte, calendered vinyl film. Both MPI 2010 and MPI 2012 offer exceptional value for applications requiring premium calendered film durability combined with permanent or removable adhesive performance.

Construction:

MPI 2010

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| Face Film: | 3.4 mil (86µm) flexible, matte, white, calendered vinyl film |
| Adhesive: | S-652 permanent, clear permanent acrylic pressure-sensitive adhesive |
| Release Liner: | 90# StaFlat® |

MPI 2012

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|-----------------------|---|
| Face Film: | 3.4 mil (86µm) flexible, matte, white, calendered vinyl film |
| Adhesive: | R-197 removable, gray permanent acrylic pressure-sensitive adhesive |
| Release Liner: | 90# StaFlat® |

Physical Properties:

The following information on physical and chemical characteristics is based upon tests believed to be reliable. The values are intended only as a source of information. They are given without guaranty and do not constitute a warranty. The purchaser should independently determine, prior to use, the suitability of this material for his/her specific purpose. (Data represents averages and is not intended for use as a specification).

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| Recommend Print Method: | <i>Solvent Inkjet. Reference IB #5.80 for recommended printer/ink combinations. NOTE: Avery Graphics recommends a maximum ink load of 250% to ensure optimal performance of the MPI products.</i> |
| Premask: | <i>Reference IB #5.50 for recommendations.</i> |
| Outdoor Durability: (unprinted film) | <i>6 years</i> |
| Outdoor Durability: (printed film) | <i>Up to 5 years when properly processed and applied (vertical exposure). Reference IB #1.30 for durability guidelines.</i> |
| Minimum Surface/Ambient Air Application Temperature | 40° F (4° C) |
| Maximum Application Temperature: | 100° F (38° C) |
| Service Temperature Range: | -40° F to 180° F (-40° C to 82° C) (Reasonable range of temperatures which would be expected under normal environmental time and temperature conditions) |
| Application Surface: | Flat; simple curves (Restricted to non-spill areas) |
| Removability: | R-197 – Up to 3 years from recommended OEM substrates S-652 - Permanent |
| Chemical Resistance: | Resistant to mild acids, alkalis, and salt solutions |
| Shelf Life: | One year when stored at the following temperatures and humidity conditions 68°-77° F (20° - 25° C) and 50±5% R. H. |



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| Typical Film Caliper (w/adhesive): | 4.2 mils (106 µm) |
| Dimensional Stability: | Good. Determined by measuring shrinkage of film applied to 36 in. ² (232 cm ²) aluminum test panel after 72 hours aging at 73° F (23° C) 50±5% R. H. followed by 48 hrs. at 150° F (65° C). |
| Flammability: | Meets ASTM E84-04, Standard Test Method for Surface Burning Characteristics of Building Materials, Class A Rated. (Further ASTM E84-04 documentation available upon request) |

Application Information:

The following Avery Dennison literature will provide complete information to the user for proper application, storage, and other requirements and is available upon request from your Avery Dennison representative or from the Avery Dennison website (www.digital.averygraphics.com).

| Instructional Bulletins: | I B # |
|--|--------------|
| Substrate Cleaning and Preparation | #1.10 |
| Storage, Maintenance and Cleaning of PVC Films | #1.20 |
| Application Instructions | #4.04 |
| Premask Recommendations | #5.50 |
| Removal Instructions | #4.10 |

Conversion Information:

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| Thermal Die-Cutting: | 290° F - 300° F (143° C to 149° C) for 0.5 - 1.0 second. Cutting temperatures and dwell times will vary with differences in die configuration and individual machines. Always test prior to production. |
| Steel Rule Die-Cutting: | Yes |

Revisions have been italicized.

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