Polyester Durable Film Overlaminating Product
OFM010NW

Product Description
3M™ Polyester Durable Film Overlaminating Product OFM010NW is a high performance clear material that offers excellent thermal stability, abrasion and moisture resistance. This polyester film utilizes 3M™ Adhesive P1400 which is a high performance tackified acrylic designed for use in demanding environments.

Technical Data

<table>
<thead>
<tr>
<th>Facestock</th>
<th>Adhesive</th>
<th>Liner</th>
</tr>
</thead>
<tbody>
<tr>
<td>.001 in. Clear</td>
<td>P1400</td>
<td>.001 in. Clear Polyester Liner</td>
</tr>
<tr>
<td>Polyester NTC</td>
<td>Perm. 16</td>
<td>(Calipers are nominal values)</td>
</tr>
</tbody>
</table>

Features
- Adhesive dry ingredients are listed by FDA as indirect food contact additives when used in food packaging with minimum opportunity for exposure. See 21 CFR 175.105.
- UL recognized for indoor/outdoor use UL files MH11410 and MH16411.
- Adhesive offers good UV resistance and excellent adhesion to a wide variety of substrates, including polyolefins.
- Liner offers exceptional adhesive smoothness and clarity for superior adhesive "wet out”.
- Meets EU RoHS Directive (e.g.) means that the product or part does not contain any of the following substances in excess of the following maximum concentration values in any homogeneous material, unless the substance is in an application that is exempt under RoHS: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium polybrominated biphenyls or polybrominated diphenyl ethers; or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M’s knowledge and belief based on information provided by third party suppliers to 3M.

Application Ideas
- Graphic protection from abrasion, UV light and moisture.
## Typical Physical Properties

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Adhesion properties determined per TLMI Method using 1.0 mil polyester with 1.0 mil of adhesive on a polished stainless steel panel.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peel Adhesion</td>
<td>2.2 lbs./in. (380 N/m)</td>
<td>TLMI Method, 180° Peel, 12”/min., 1” wide sample</td>
</tr>
<tr>
<td>Loop Tack</td>
<td>1.8 lbs./in. (316 N/m)</td>
<td>TLMI Method, 12”/min., 1” wide sample</td>
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<tr>
<td>Shear</td>
<td>4 hours</td>
<td>TLMI Method, 0.25 in.² x 500g</td>
</tr>
<tr>
<td>Adhesive Coat Weight</td>
<td>1.40 to 1.71 g/100 in.²</td>
<td>TM-2279</td>
</tr>
<tr>
<td>Release Range</td>
<td>10 to 30 g/2 in.</td>
<td>TLMI Method, 180° removal, 300 in./min.</td>
</tr>
<tr>
<td>Service Temperature</td>
<td>-20°F to 257°F (-29°C to 125°C)</td>
<td></td>
</tr>
<tr>
<td>Application Temperature</td>
<td>40°F to 120°F (5°C to 49°C)</td>
<td></td>
</tr>
<tr>
<td>Convertability</td>
<td>3M™ Outdoor Acrylic Adhesive P1400 is specifically designed to be compatible with a variety of print methods and end use applications. Adhesive processing issues are not anticipated when proper roll tensions, handling and storage conditions are used. Please refer to the die cutting/converting section of this data page or the &quot;Guide to Converting and Handling Label Products&quot; technical bulletin for additional information.</td>
<td></td>
</tr>
</tbody>
</table>

## Application Techniques

For maximum bond strength, surface should be clean and dry. A typical cleaning solvent is heptane or isopropyl alcohol. **Note:** Consult the manufacturer’s MSDS for proper handling and storage of solvents. For best conditions, application surface should be at room temperature or higher. Low temperature surfaces (below 10°F [-12°C]) can cause the adhesive to become so firm that it will not develop maximum contact with the substrate. Higher initial bonds are achieved through increased rub down pressure.

## Printing

This film is not treated for printability.

## Storage Conditions

Store under normal conditions of 70°F (21°C) and 50% relative humidity. To minimize the effects of humidity on the products, package the die-cut and printed stock in polyethylene bags. Low density polyethylene (2-4 mils) can help prevent humidity penetration.

## Shelf Life

To obtain best performance, use this product within two years from the date of manufacture.
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Product Use
All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

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