3M

Tamper Indicating "Non-transferable" Computer Imprintable Sheet Polyester Label Material 7937

Product Data Sheet

Updated : July 2000
Supersedes : August 1999

Physical Properties
Not for specification purposes
(Calipers are nominal values)

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facestock</td>
<td>63 micron (2.5 mils) Polyester</td>
</tr>
<tr>
<td>Adhesive</td>
<td>25 micron (1.0 thou) #300 Hi-Strength Acrylic</td>
</tr>
<tr>
<td>Liner</td>
<td>170 micron (6.7 thou), 147 g/m² (90#) Polycoated Kraft</td>
</tr>
<tr>
<td>Shelf Life</td>
<td>24 months from date of manufacture when properly stored at 22°C (72°F) &amp; 50% Relative Humidity</td>
</tr>
</tbody>
</table>

Features:
- Tamper indicating - Designed to provide a VOID message in the facestock when removal is attempted.
- The compact format of the VOID message permits manufacture of small labels (½" x 1¼")
- "Hi-Strength" Acrylic Adhesive for high bond to most surfaces. Compatibility must be determined.
- Computer Imprintable - accepts images from dot-matrix printers.
- Durable polyester facestock for harsh environments
- 7937 UL recognised (File No. MH 11410) See UL listings for details.
- 147 g/m² lay-flat polycoated kraft liner provides easy sheet processing.

Application Ideas:
- Non transferable labels for automotive, appliance and electronic industries
- Tamper indicating labels and seals for medical and pharmaceutical industries
### Physical Properties

Not for specification purposes

<table>
<thead>
<tr>
<th>Property</th>
<th>Adhesion</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Suitable for application to a variety of clean* surfaces.</td>
</tr>
</tbody>
</table>

- Stainless Steel
- ABS
- Polypropylene
- Glass
- Poly carbonate

*Assume all surfaces to which 3m 7937 will be applied are contaminated – metals may be oily or dusty; plastics may be coated with mould release agents, dirt, etc. Any surface contaminant will adversely affect adhesion and the destruct message: therefore, it must be removed prior to application by solvent wiping.

**Solvent Wiping:**
A. Wet the application surface with a mild solvent such as isopropyl alcohol (rubbing alcohol) or heptane and wipe thoroughly.
B. Dry the surface with a lint free cloth before the solvent evaporates from the surface.

**CAUTION:** Consult the manufacturers Material Safety Data Sheet for proper handling and storage of solvents.

**Application Pressure:**
Sufficient application pressure and dwell time is required to develop adhesion to assure VOID message appears both on the facestock and the substrate upon removal or upon attempted removal through tampering. Higher initial bonds can be achieved through increased application pressure such as firm hand or squeegee pressure.

**Dwell Time:**
24hrs room temperature 72°F (22°C) before testing

**Conformability**
Semi-rigid, suitable for flat or slightly curved surfaces

### Environmental Performance

Properties defined are based on the adhesion of the label stock to a stainless steel test surface.

**Chemical Resistance:**
Bond is secure when exposed to the following:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline</td>
<td>1 hour at room conditions.</td>
</tr>
<tr>
<td>Auto Oil</td>
<td>72 hours at 120F.</td>
</tr>
<tr>
<td>Weak Alkali</td>
<td>4 hours at room conditions.</td>
</tr>
<tr>
<td>Weak</td>
<td>4 hours at room conditions.</td>
</tr>
<tr>
<td>MEK</td>
<td>1 hour at room conditions.</td>
</tr>
<tr>
<td>Freon TF</td>
<td>1 Hour at room conditions.</td>
</tr>
<tr>
<td>NaCl Solution</td>
<td>72 hours at room conditions</td>
</tr>
</tbody>
</table>

**Water Resistance:**
Withstands exposure to water at room temperature for 72 hours

**Temperature Resistance:**
Withstands exposure from -40°F (-40C) to 250°F (121C)

**Humidity Resistance:**
Withstands exposure to 95°F and 95% R.H. for 168 hours.
3M 7937 is top coated to accept standard Flexo and Letterpress inks. This product is designed for processing on a flat bed screen printing press.

Die Cutting
Die cut with steel rule or flatbed dies. The 127 g/m² lay-flat also allows kiss cutting and back splitting. The converter can cut through the polyester facestock without cutting through the liner. Sheetable label materials are not recommended for rotary die cutting and stripping operations.

Special Considerations
The matt computer imprintable surface is abrasive. Therefore it is advisable that the converter purchase a long wearing hardened steel die or purchase 2 dies for extended runs.

The special matt surface accepts images from dot matrix printers, typewriters, ball point pens, pencils and grease pens.

Care should be taken not to disturb the tamper-indicating feature by pre-destructing the VOID message when manually removing the label from the liner. Slowly remove the liner from the label at a 90° angle.

The tamper-indicating mechanism (i.e. the VOID message both on the facestock and on the substrate) for 3M 7937 depends upon adequate adhesion of the label to the substrate. A sufficient bond may not develop on all surfaces due to low surface energy or contaminated surfaces (mould release). Therefore, it is important to determine the suitability of 3M 7937 in the intended application by carefully pre-testing before the application process has begun.

The compact VOID message permits manufacture of labels as small as 1/2" x 1-1/4".

The primary function of 3M 7937 Label Stock is to effect a non-transferable (non reusable) label or seal by causing the VOID messages to appear on the facestock surface when removal is attempted.

As a result of the primary function described above a VOID message is also transferred to the application surface. This message is a secondary rather than permanent indication of tampering since the VOID message transferred to the application surface can be removed by rubbing or by solvent wiping.

Caution should be exercised to avoid covering the surface of the label with opaque graphics to the extent that the VOID message is hidden by the graphics and the effectiveness of the label or seal is lessened.

Every slit roll has been tested for the presence of the VOID message. The leading edge of every slit roll is tabbed with a 1-1/2" strip to simulate tampering, thereby indicating that the VOID message is functional on the leading edge of that roll.
**Special Considerations Contd.**

This 3M label stock properly used is designed to provide significant end user notice through the tamper-indicating feature built into the label stock construction. 3M does not guarantee the label stock to be 100% tamper proof. We encourage you to test the degree of security provided by this 3M label stock in your end use application to ensure suitability for your application. Based upon 3M's years of market experience we will be pleased to consult with you on the selection of the best 3M label stock material for your application. Final determination of suitability for the end use application rests with the converter and the converter’s customers.

It is recommended that the converter test for the presence of the VOID message on every roll of labels or seals as the converter processes them, to ensure the product quality and consistency. This can be done by laminating a label or seal to an untreated polyester film test surface. The label or seal should be wiped down with a squeegee, allowed to dwell 10 minutes and then be removed to observe the presence and function of the VOID message on both the facestock and the substrate. It is also recommended that the converter test each lot of labels or seals on the actual application surface to assure the function of the VOID message.

It is recommended that the end user test samples from each roll of labels or seals received from the converter. This should be done by laminating a representative label or seal to the specific application surface to assure its function meets expectations. This test can be run after 10 minutes dwell; however, final judgement should be based on 72 hours dwell at room temperature prior to testing.

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Values presented have been determined by standard test methods and are average values not to be used for specification purposes. Our recommendations on the use of our products are based on tests believed to be reliable but we would ask that you conduct your own tests to determine their suitability for your applications. This is because 3M cannot accept any responsibility or liability direct or consequential for loss or damage caused as a result of our recommendations.

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