**Bright Silver Polyester Label Stock 7323**

**Product Data Sheet**

Updated : April 2004  
Supersedes : July 2000

**Description :**

#300 High Strength Acrylic Adhesive provides:
- Permanence
- high initial adhesion to plastics, metals and painted surfaces.
- excellent long-term ageing.
- resists flagging and edge-lifting on flat or curved smooth surfaces.

Top-coated polyester provides excellent anchorage for a wide variety of inks and varnishes.

Uniform caliper densified Kraft liner provides consistent die-cutting,

UL Recognised - File MH-11410

### Physical Properties

**Facestock**

51 micron (2 thou) Bright Silver Polyester

**Adhesive**

20 micron (0.8) thou #300 High Strength Acrylic

**Liner**

81 micron (3.2 thou), 90 glm2 (#55), Densified Kraft

**Shelf Life**

24 months under normal storage conditions of 22°C & 50% Relative Humidity

### Physical Properties

**Adhesion**

The #300 adhesive was formulated to bond permanently on most surfaces. It is ideal for the more difficult low surface energy plastic surfaces which measure less than 38 dynes/cm (surface energy). Typical of these surfaces are polystyrene, polyethylene and polypropylene. This adhesive was also designed for applications requiring quick initial adhesion.

The #300 adhesive is not recommended on plasticised surfaces such as flexible vinyl (PVC).

<table>
<thead>
<tr>
<th>Surface (N/10mm)</th>
<th>Initial 10 min dwell</th>
<th>Room temp 72hr dwell</th>
<th>Ultimate 72hr @ 65°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stainless Steel</td>
<td>6.2</td>
<td>7.7</td>
<td>7.7</td>
</tr>
<tr>
<td>ABS</td>
<td>5.2</td>
<td>6.0</td>
<td>4.9</td>
</tr>
<tr>
<td>Polypropylene</td>
<td>5.5</td>
<td>5.9</td>
<td>5.5</td>
</tr>
</tbody>
</table>

**Static peel – Adhesion of label stock @ 90° angle with constant stress**

<table>
<thead>
<tr>
<th>Surface:</th>
<th>Load Grams</th>
<th>Minutes to Failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stainless Steel</td>
<td>500</td>
<td>45+</td>
</tr>
<tr>
<td>Polypropylene</td>
<td>200</td>
<td>175+</td>
</tr>
</tbody>
</table>
Environmental Performance

Temperature Resistance:
When properly mounted to a surface (see application procedures below) the 50 microns polyester label stocks perform through a broad temperature range, -40° to 150°C (-40°F to 300°F)

These label stocks have been UL recognised as a Marking and Labelling System Material under File MH-11410.

Water Resistance:
No effect on appearance and no edge penetration in water at (22°C) for 48 hours.

Humidity Resistance:
No effect on labels applied to test panel when exposed to 100% RH and 30°C for 168 hours.

Chemical Resistance:
Excellent resistance to a variety of chemicals. (Labels bonded to aluminium test panels).

<table>
<thead>
<tr>
<th>Chemical Immersion (Room temperature)</th>
<th>Adhesive Edge Penetration</th>
<th>Label Appearance*</th>
</tr>
</thead>
<tbody>
<tr>
<td>30W Oil (24hrs)</td>
<td>None</td>
<td>Excellent</td>
</tr>
<tr>
<td>Gasoline (4hrs)</td>
<td>4.2mm</td>
<td>Excellent</td>
</tr>
<tr>
<td>Detergent/Water (24hrs)</td>
<td>None</td>
<td>Excellent</td>
</tr>
<tr>
<td>Sulphuric Acid (10%) (24hrs)</td>
<td>None</td>
<td>Excellent</td>
</tr>
<tr>
<td>Bleach/Water (20%) (24hrs)</td>
<td>None</td>
<td>Excellent</td>
</tr>
<tr>
<td>Windshield Washer Solution (24hrs)</td>
<td>None</td>
<td>Excellent</td>
</tr>
<tr>
<td>Ethylene Glyco/Water (24hrs)</td>
<td>None</td>
<td>Excellent</td>
</tr>
</tbody>
</table>

*Excellent appearance defined as no evidence of bubbling, crazing, cracking or blistering

Applications

3M™ Polyester label stocks are used for a wide variety of permanent identification and decorative applications throughout industry. Because of the wide performance range of these polyester films and our #300 High Strength Acrylic Adhesive, the product can be considered for the most permanent labelling requirements. The finishes offered provide the product designer a variety of decorative options.

Application Recommendation:
Clean and dry substrate - many surfaces contain dust, processing oils, fingerprints or an oxidised layer. Suggested cleaning solvents are heptane and isopropyl alcohol. Check durability or surface to be cleaned in an unseen area or on backside with available solvent, before cleaning with solvents in label area. Stronger solvents are used only on bare metals to remove process oils.

Temperature of substrate should be 10°C or above. For best results the substrate should be at room temperature. Substrates can be preheated. This is typically done for surfaces below 10°C.

Label contact pressure - In this situation more is better. More roll down provides higher immediate bond. Firm rub down forces the adhesive to flow into the cracks and crevices of a substrate thereby achieving more intimate contact between the adhesive and the surface.
**Primary Industries**

- Appliance Informational Labelling
- Electrical Component Identification Labelling
- Electronic & Office Equipment Labelling
- Lawn & Garden Decals & Emblems
- Sporting Goods & Recreational Equipment
- Nameplates
- Toy Labelling & Decorating
- Pharmaceutical Labelling
- Cosmetic Container Decoration

**Processing**

Printability - All of the polyester label stock series contain a unique topcoated surface. This surface provides excellent ink anchorage to a wide range of flexographic, hot-stamp, and letter press inks.

Nitrocellulose and vinyl/acrylic flexo inks are suggested.

Die-Cuttability - This series of products is mounted on an extremely uniform calliper 50# densified kraft硅cone liner for consistent die cutting and stripping performance at high press speeds.

Easy Release Liner - The silicone surface provides a controlled release for consistent stripping and automatic dispensing.

**Special Considerations**

For maximum bond strength, surface should be clean and dry. A typical cleaning solvent is heptane or isopropyl alcohol. Consult the manufacturer’s Material Safety Data Sheet for proper handling and storage of solvents.

For best bonding conditions, application should be at room temperature or slightly higher. Low temperature surfaces, below 10°C (50°F), 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. Use maximum laminating pressure for best results.

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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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