Avery® MPI Etchmark
Acid Etched Effect Cast Vinyl Permanent

Features
• Brilliant visual acid etched effect
• Very good printability on all eco-solvent, solvent & UV Curable inkjet printers
• Excellent conversion and handling properties
• Easy cutting and weeding
• Outstanding durability and outdoor life
• Excellent dimensional stability when processed correctly
• Excellent UV, temperature, humidity and salt-spray resistance
• Excellent adhesion

Description
- Film: 53 micron cast vinyl film with etched effect
- Adhesive: Permanent clear acrylic
- Backing: One side coated bleached kraft paper
- Outdoor life: Up to 5 years unprinted Asia Pacific

Conversion*
- Flat bed cutters
- Friction fed cutters
- Die cutting
- Thermal transfer
- Screen printing
- Cold overlaminating
- Water based inkjet
- Eco Solvent inkjet
- Solvent inkjet
- UV Curable inkjet

Common Applications
• Window graphics
• Architectural signage

Uses
Avery MPI Etchmark is designed to be digitally printed to create the image of acid etched decorations on glass without the use of etching chemicals. It is also suitable for functional and manifestation graphics. Avery MPI Etchmark can be applied to flat surfaces and produces best results when applied to transparent substrates such as glass, acrylic sheeting, and polycarbonate.
**General**

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification/ISO</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caliper, facefilm</td>
<td>ISO 534</td>
<td>53 micron</td>
</tr>
<tr>
<td>Caliper, facefilm &amp; adhesive</td>
<td>ISO 534</td>
<td>76 micron</td>
</tr>
<tr>
<td>Dimensional stability</td>
<td>DIN 30646</td>
<td>0.4 mm max</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>DIN 53455</td>
<td>0.3 to 0.55 kg/cm</td>
</tr>
<tr>
<td>Elongation</td>
<td>DIN 53455</td>
<td>100% minimum</td>
</tr>
<tr>
<td>Gloss</td>
<td>ISO 2813, 20º</td>
<td>NA</td>
</tr>
<tr>
<td>Adhesion, initial</td>
<td>FINAT FTM-1, stainless steel</td>
<td>525 N/m</td>
</tr>
<tr>
<td>Adhesion, ultimate</td>
<td>FINAT FTM-1, stainless steel</td>
<td>630 N/m</td>
</tr>
<tr>
<td>Flammability</td>
<td></td>
<td>Self extinguishing</td>
</tr>
<tr>
<td>Shelf life</td>
<td>Stored at 22° C/50-55 % RH</td>
<td>2 years</td>
</tr>
<tr>
<td>Accelerated ageing</td>
<td>DIN 53387</td>
<td>No negative impact on film performance</td>
</tr>
<tr>
<td>Durability **</td>
<td>Vertical exposure</td>
<td>up to 5 years (unprinted)</td>
</tr>
</tbody>
</table>

**Thermal**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application temperature</td>
<td>Minimum: + 7ºC</td>
</tr>
<tr>
<td>Temperature range</td>
<td>- 46ºC to + 82ºC</td>
</tr>
</tbody>
</table>

**Chemical**

- Resistant to most petroleum based oils, greases and aliphatic solvents
- Resistant to most mild acids, alkalies, and salts
- Resistant to humidity and water

**Note:**

Materials have to be properly dried and cured before further processing, like laminating, varnishing, trimming, contour cutting or application. The residual solvents can otherwise change the products’ specific features and properties.

**Important**

Information on physical characteristics is based upon tests we believe to be reliable. The values listed herein are typical values and are not for use in specifications. They are intended only as a source of information and are given without guarantee and do not constitute a warranty. Purchasers should independently determine, prior to use, the suitability of any material for their specific use.

All technical data is subject to change without prior notice.

**Warranty**

Avery® materials are manufactured under careful quality control and are warranted to be free from defect in material and workmanship. Any material shown to our satisfaction to be defective at the time of sale will be replaced without charge. Our aggregate liability to the purchaser shall in no circumstances exceed the cost of the defective materials supplied. No salesman, representative or agent is authorised to give guarantee, warranty, or make any representation contrary to the foregoing.

All Avery® materials are sold subject to the above conditions, being part of our standard conditions of sale, a copy of which is available on request.

**Durability**

Durability is based on exposure conditions in the Asia Pacific region. Actual performance life will depend on substrate preparation, exposure conditions and maintenance of the marking. For instance, in the case of signs facing north in the southern hemisphere or south in the northern hemisphere; in areas of long high temperature exposure such as northern Australia; in industrially polluted areas or high altitudes, exterior performance will be decreased.

*Compatible with most printer and ink combinations. Test prior to use.

***Information unavailable at time of printing.

**Test Methods**

**Dimensional stability:**
Is measured on a 150 x 150 mm aluminium panel to which a specimen has been applied, 72 hours after application the panel is exposed for 48 hours to + 70ºC, after which the shrinkage is measured.

**Adhesion:**
(FTM-1, FINAT) is measured by peeling a specimen at a 180° angle from a stainless steel or float glass panel, 24 hours after the specimen has been applied under standardised conditions. Initial adhesion is measured 20 minutes after application of the specimen.

**Flammability:**
A specimen applied to aluminium is subjected to the flame of a gas burner for 15 seconds. The film should stop burning within 15 seconds after removal from the flame.

**Temperature range:**
A specimen applied to stainless steel is exposed at high and low temperatures and brought back to room temperature. 1 hour after exposure the specimen is examined for any deterioration. Note: Prolonged exposure to high and low temperatures in the presence of chemicals such as solvents, acids, dyes, etc. may eventually cause deterioration.

**Chemical Resistance:**
All chemical tests are conducted with test panels to which a specimen has been applied, 72 hours after application the panels are immersed in the test fluid for the given test period, 1 hour after removing the panel from the fluid, the specimen is examined for any deterioration.

**Corrosion Resistance:**
A specimen applied to aluminium is exposed to saline mist (5% salt) at 35ºC. After exposure, the film is removed and the panel is examined for traces of corrosion.

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