Avery Dennison® 7551 Functional Film
Black PVC

Features
- Excellent protection characteristics.
- Excellent durability.
- Excellent high frequency welding characteristics.
- Excellent adhesion to car paints.
- Allows application to slightly curved car exterior parts.

Description
- **Film:** 150 micron, specially modified, fine grained, vinyl film.
- **Adhesive:** permanent, UV resistant, acrylic based.
- **Backing:** one side coated bleached kraft paper, 140 g/m².
- **Outdoor life:** Up to 5 years.
- **Colours:** Black.

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

Common Applications
- Buses
- Vehicles
- Trains

Conversion
Avery Dennison 7551 Functional Film can best be cut to size or shape by means of die cutting. High frequency welding is an option to change surface characteristics such as gloss or grain. This allows for adding logos or other design options to the film surface without the need for printing.

Uses
Avery Dennison 7551 Functional Film can be applied to specific areas on the car exterior to enhance or add sportive design characteristics, while additional protection of the car body against mechanical damages is realised.
Avery Dennison 7551 Functional Film should not be applied at areas where it will be exposed to (prolonged) dripping or immersion to gasoline, diesel oils etc.
Avery Dennison 7551 Functional Film should preferably be applied to vertical car parts.

Sign Materials
Product Data Sheet
General

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caliper, face film</td>
<td>ISO 534</td>
<td>150 micron</td>
</tr>
<tr>
<td>Dimensional stability</td>
<td>DIN 30648</td>
<td>0.3 mm max</td>
</tr>
<tr>
<td>Adhesion, initial</td>
<td>FINAT FTM-1, stainless steel</td>
<td>500 N/m</td>
</tr>
<tr>
<td>Adhesion, ultimate</td>
<td>FINAT FTM-1, stainless steel</td>
<td>720N/m</td>
</tr>
<tr>
<td>Flammability</td>
<td>Self extinguishing</td>
<td></td>
</tr>
<tr>
<td>Shelf life</td>
<td>Stored at 22° C/50 % RH</td>
<td>2 years</td>
</tr>
<tr>
<td>Durability **</td>
<td>Vertical exposure</td>
<td>Up to 5 years</td>
</tr>
</tbody>
</table>

Thermal

<table>
<thead>
<tr>
<th>Property</th>
<th>Temperature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application temperature</td>
<td>Minimum: +1 0°C</td>
<td></td>
</tr>
<tr>
<td>Temperature range</td>
<td>- 40°C to + 110°C</td>
<td></td>
</tr>
</tbody>
</table>

Chemical

<table>
<thead>
<tr>
<th>Property</th>
<th>Time</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humidity resistance</td>
<td>20 hours exposure</td>
<td>No effect</td>
</tr>
<tr>
<td>Corrosion resistance</td>
<td>120 hours exposure</td>
<td>No contribution to corrosion</td>
</tr>
<tr>
<td>Water resistance</td>
<td>Film withstands cleaning with hot water high pressure cleaning equipment.</td>
<td></td>
</tr>
<tr>
<td>Chemical resistance</td>
<td>Mild acids</td>
<td>No effect</td>
</tr>
<tr>
<td></td>
<td>Mild alkalis</td>
<td>No effect</td>
</tr>
<tr>
<td>Solvent Resistance</td>
<td>Applied to aluminium: Antifreeze, 4 hours immersion</td>
<td>No effect</td>
</tr>
</tbody>
</table>

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 +70°C, 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 aluminum 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 30°C. After exposure, the film is removed and the panel is examined for traces of corrosion.

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 Dennison® 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 representations contrary to the foregoing.

All Avery Dennison® 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 normal middle European and central North American regions. 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. Please refer to Avery Dennison Instructional Bulletin 1.3 for definitions and reductions based on the ‘Zone System’.

***Information unavailable at time of printing.***