### Substrate Compatibility Test Report

**Date:** 5/19/10  
**Material:** Label  
**Machine:** ws4050 / Nr.  
**Location:** RIT  
**Certification number:** R04050-10-1787

#### SUBSTRATE TEST DETAILS

**Supplier name:** Avery Dennison - FRNA  
**Media name:** 60#CAST Gloss ITC/S246/40#SCK

<table>
<thead>
<tr>
<th>Category</th>
<th>Paper</th>
<th>Shrink Sleeve</th>
<th>Synthetic</th>
<th>Magnetic</th>
<th>Cartonboard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-adhesive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flexible Packaging</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Region</th>
<th>Europe</th>
<th>US</th>
<th>Canada</th>
<th>API</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Media type</th>
<th>Paper</th>
<th>PE</th>
<th>PET</th>
<th>PC</th>
<th>OPS</th>
<th>Coated Glass</th>
<th>Coated Matte</th>
<th>PLA</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialty Textile</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnetic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Test description:
Official substrate compatibility test for industrial presses ws4000/ws4050/ws4500.

#### Test procedure:
- Screen test  
- Full test

#### Shipping condition received goods:
Firmly wrapped and protected to stabilize environmental conditions.

#### Setup (default):
- **Ink version:** 4.0  
- **Blanket code:**  
- **Pip code:**  
- **ITM default temperature:** 146 deg C.

#### Substrate behaviour:
- **Bleeding:** None  
- **Telescopic:** None  
- **Static:** None  
- **Jams:** None

#### Necessary print cleaners:
0

#### Ink adhesion:
- **Cyan:** Pass  
- **Yellow:** Pass  
- **Black:** Pass  
- **Magenta:** Pass  

#### Forced colour test:
- **Cyan:** Pass  
- **Magenta:** Pass  
- **Yellow:** Pass  
- **Black:** Pass

#### Temperature mapping:
- **135 deg C:** N/A  
- **146 deg C:** N/A  
- **156 deg C:** N/A

#### Test result/conclusion:
- **PASS**  
- **FAIL**

#### Additional remarks/comments:
Adhesion for the white ink was only 44% 60 minutes after printing.