PRODUCT 3916

DESCRIPTION:
This is a heat sealable elastomeric adhesive film with excellent recovery. This product is designed to be used in applications where very high recovery, extended wear comfort and performance is required. It shows excellent adhesion and wash resistance when bonded to a variety of fabrics, including Nylon/Spandex, Polyester/Spandex and Cotton/Spandex blends.

SUGGESTED APPLICATIONS:
This adhesive film will be used to bond lightweight stretch fabrics together in various applications, generally to replace sewing (e.g., bra wings, laydown and body shaping, foldover hem, necklines, bra straps, panty leg opening and waist hemming).

PRODUCT BENEFITS:
One product solution to replace multiple steps and achieve high recovery, extended wear comfort and performance. The low temperature activation allows the use of a wide variety of fabrics and faster processing speed.

COMPOSITION:
Thermoplastic Polyurethane

THERMAL & PHYSICAL PROPERTIES
- Color: Clear
- Weight: 180 gm/m²
- Release Liner: Release Paper
- Total Gauge: 152 µm (0.006“); Adhesive Gauge: 51 µm (0.002“)
- Width: Product can be slit to requested widths, no less than 4mm (0.157“)
- Hand: Soft
- Wash: Excellent up to 40 °C

Modulus and Recovery 25.4 mm (1”) wide sample pulled to 100% Elongation at 304mm (12”) per minute for 1 cycle

<table>
<thead>
<tr>
<th>Gauge</th>
<th>Modulus @ 40% Elongation</th>
<th>Modulus @ 100% Elongation</th>
<th>Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td>152 µm (0.006“)</td>
<td>7.8 N (1.8 lbs)</td>
<td>13.2 N (3.0 lbs)</td>
<td>100%</td>
</tr>
</tbody>
</table>

Modulus and Recovery 12.0 mm (0.5”) wide sample pulled to 50% Elongation at 508mm (20”) per minute for 3 cycles

<table>
<thead>
<tr>
<th>Gauge</th>
<th>Modulus: 3rd Cycle @ 50% Elongation</th>
<th>Recovery: After 3rd cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>152 µm (0.006“)</td>
<td>3.2 N (0.7 lbs)</td>
<td>96%</td>
</tr>
</tbody>
</table>

- Softening Point: 95 °C (for adhesive layer)
- Melt Flow Index: 45 dg/min (for adhesive layer)  Condition: 175 °C / 2.16 Kg Load
- Glue Line Temperature: 110 °C to 165 °C

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• **Recommended Bonding Conditions**²:
  
  o **Flat Press**:
    - Machine Setting: 115 °C to 170 °C
    - Dwell Time: 15 - 25 seconds
    - Pressure: 2.8 – 4.2 Bar (40 - 60 psi)

  o **Continuous Bonding Machine**
    - Lamination Machine Setting: 150 °C to 200 °C
    - Speed: 1.75 m/min
    - Pressure: 1.0 Bar (14.5 psi)

    - Bonding Machine Setting (Foot and Plate): 225 °C to 325 °C
    - Top and Bottom Air blower temperature: 200 °C to 300 °C
    - Speed: 1.0 - 1.5 m/min
    - Roller Pressure: 2.0 Bar (29.4 psi)

1 Glue Line Temperature (GLT) refers to the temperature of the adhesive in the bonding process. Glue line temperature must be measured to receive accurate machine settings.

2 Recommended bonding conditions will vary between different machinery and fabrics. The recommended conditions stated are a starting point only. Optimal bonding conditions should be established by the factory for the specific application.