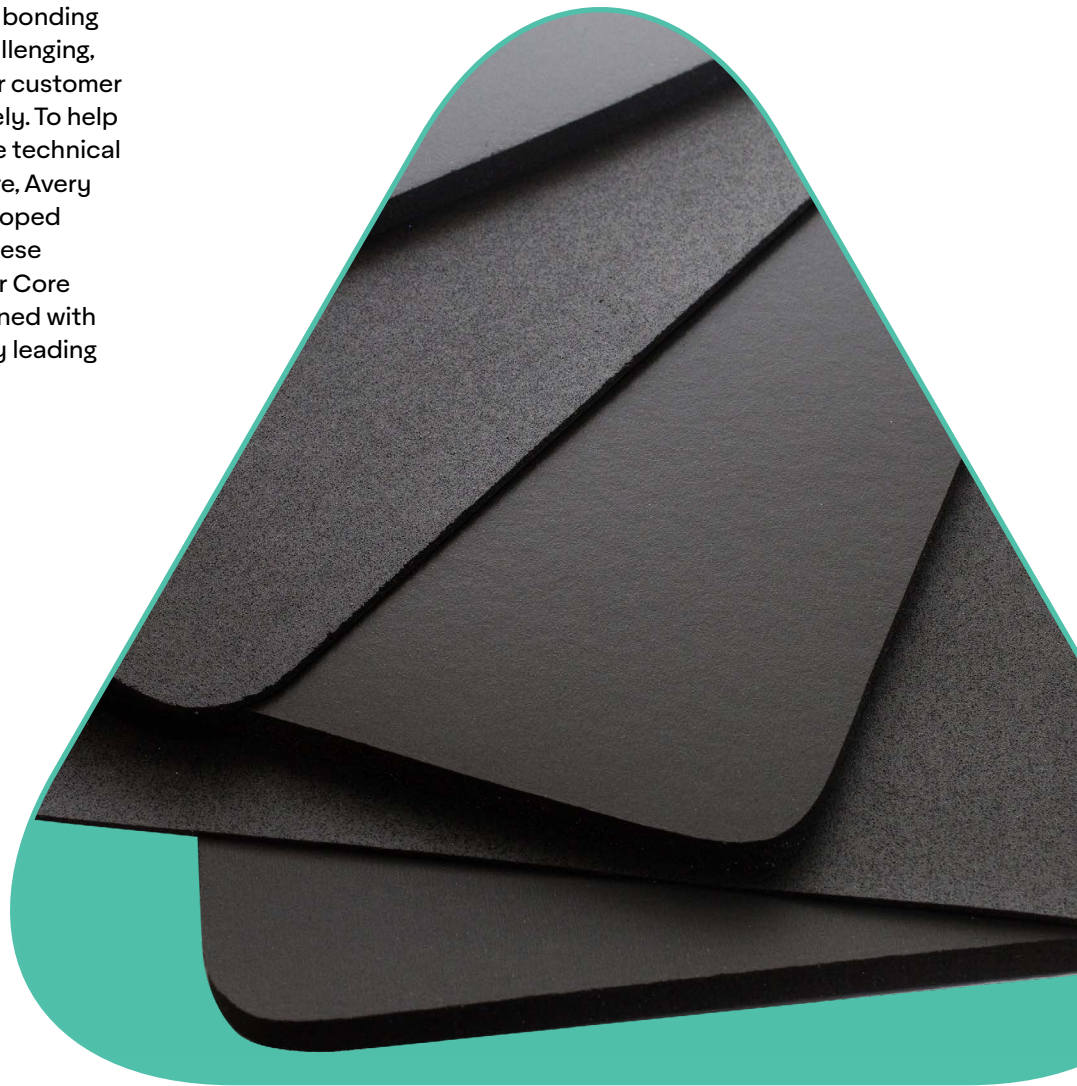


Avery Dennison Performance Tapes

# Bonding Study: Rogers PORON® Industrial Polyurethanes

Determining the correct adhesive when bonding to foam and other materials may be challenging, especially when seeking to provide your customer an accurate quote quickly and accurately. To help you with the adhesive selection, and the technical requirements your customer may require, Avery Dennison Performance Tapes has developed a series of adhesive bonding studies. These studies highlight the performance of our Core Series™ Portfolio products when combined with foams and other materials from industry leading manufacturers.



## Bonding to Rogers PORON® Industrial Polyurethanes

Rogers' line of PORON® industrial polyurethanes provides durable, long-term performance. Whether in gasket design, sealing, cushioning, or vibration management, PORON® products are low-outgassing, non-fogging, non-corrosive, and will not become brittle and crumble. The extensive range of PORON® materials address a multitude of design requirements.



## Rogers PORON® and Avery Dennison Adhesive Sample Preparation

Avery Dennison adhesive products were backed with a 2 mil PET film and trimmed to a one-inch width. Two sample sets were laminated to Rogers PORON® Industrial Polyurethanes.

Set	Description
1	Laminated at room temperature. 30% compression, 20 psi, 20 fpm, 72 hr recovery after lamination.
2	Laminated at 220°F, 30% compression, 20 psi, 20 fpm, 72 hr recovery at room temperature after lamination.



## Rogers PORON® and Avery Dennison Adhesive Sample Testing

Foam bonding is affected by the foam's base polymer, thickness, and cell type. Adhesion to foam is impacted by factors such as: adhesive mass, pressure, compression, lamination speed and temperature. All samples were tested at 180° Peel Adhesion at 12 in/min. It was determined by this study that heat lamination is beneficial (220°F).

Rogers PORON Materials	Avery Dennison Adhesive Families	Avery Dennison Product Numbers	Performance with Rogers PORON Materials
<ul style="list-style-type: none"> <li>• 4701-30-15 Very Soft</li> <li>• 4701-30-20 Very Soft</li> <li>• 4701-30-25 Very Soft</li> </ul>	<ul style="list-style-type: none"> <li>● High Performance Acrylic (HPA™)</li> </ul>	<ul style="list-style-type: none"> <li>HPA 1902</li> <li>HPA 1905</li> </ul>	<ul style="list-style-type: none"> <li>Good</li> <li>Good</li> </ul>
<ul style="list-style-type: none"> <li>• 4701-37-14 AquaPro™, Very Soft</li> </ul>	<ul style="list-style-type: none"> <li>● LSE Modified Acrylic</li> </ul>	<ul style="list-style-type: none"> <li>FT 1943 PP</li> </ul>	<ul style="list-style-type: none"> <li>Better</li> </ul>
<ul style="list-style-type: none"> <li>• 4701-40-15 Soft</li> <li>• 4701-40-20 Soft</li> <li>• 4701-40-30 Soft</li> </ul>	<ul style="list-style-type: none"> <li>● Emulsion Acrylic</li> </ul>	<ul style="list-style-type: none"> <li>FBA 1118 GL</li> <li>FBA 7918 GL</li> <li>FBA 8318 GL</li> </ul>	<ul style="list-style-type: none"> <li>Better</li> <li>Better</li> <li>Better</li> </ul>
<ul style="list-style-type: none"> <li>• 4701-41-15 AquaPro™, Soft</li> <li>• 4701-41-20 AquaPro™, Soft</li> <li>• 4701-41-30 AquaPro™, Soft</li> </ul>	<ul style="list-style-type: none"> <li>● High Performance Low VOC Acrylic</li> </ul>	<ul style="list-style-type: none"> <li>FT 1149X</li> </ul>	<ul style="list-style-type: none"> <li>Better</li> </ul>
<ul style="list-style-type: none"> <li>• 4701-50-15 Firm</li> <li>• 4701-50-20 Firm</li> <li>• 4701-50-30 Firm</li> </ul>	<ul style="list-style-type: none"> <li>● General Purpose Rubber</li> </ul>	<ul style="list-style-type: none"> <li>FBR 8950</li> </ul>	<ul style="list-style-type: none"> <li>Better</li> </ul>
<ul style="list-style-type: none"> <li>• 4701-60-15 UR Very Firm</li> <li>• 4701-60-20 UR Very Firm</li> </ul>	<ul style="list-style-type: none"> <li>● Differential: General Purpose Rubber / High Shear Rubber</li> </ul>	<ul style="list-style-type: none"> <li>FT 8327</li> </ul>	<ul style="list-style-type: none"> <li>Better</li> </ul>
<ul style="list-style-type: none"> <li>• 4701-60-25 UR Very Firm</li> </ul>	<ul style="list-style-type: none"> <li>● General Purpose Acrylic</li> </ul>	<ul style="list-style-type: none"> <li>FT 1123</li> <li>FT 1126</li> </ul>	<ul style="list-style-type: none"> <li>Better</li> <li>Better</li> </ul>
<ul style="list-style-type: none"> <li>• 4790-79-15 ShockSeal™</li> <li>• 4790-92-12 Extra Soft</li> <li>• 4790-92-15 Extra Soft</li> </ul>	<ul style="list-style-type: none"> <li>● Pure Acrylic</li> </ul>	<ul style="list-style-type: none"> <li>FBA 1115</li> <li>FBA 8315</li> </ul>	<ul style="list-style-type: none"> <li>Best</li> <li>Best</li> </ul>

**Good** = Likely to achieve foam tear with heated lamination.

**Better** = May achieve foam tear without heat lamination.

**Best** = Likely to achieve foam tear at room temperature.

For more information about Rogers PORON® Industrial Polyurethanes visit, [rogerscorp.com/elastomeric-material-solutions/poron-industrial-polyurethanes](https://rogerscorp.com/elastomeric-material-solutions/poron-industrial-polyurethanes).

To identify the Avery Dennison Core Series adhesive ideal for your application, please refer to the Core Series Product Selection Tool. Using the Core Series' simple four-step adhesive selection process, you will be able to find the product that best suits your needs. The Core Series Product Selection Tool is available at [tapes.averydennison.com/coreseries](https://tapes.averydennison.com/coreseries).