Skin-Friendly Adhesive Platforms for Drug Delivery Systems

Adhesives Research’s pressure-sensitive adhesive and coating technologies are found in the world’s leading pharmaceutical products. With nearly 60 years of experience in custom adhesive formulation and processing, AR is dedicated to delivering the highest possible quality and reliability in the design, manufacture and delivery of our products and services. Our experienced staff provides the appropriate cGMP and regulatory support to make your product a success.

Our versatile, skin-friendly adhesive platforms provide custom bonding options for body-worn drug delivery devices.

Benefits of our skin-friendly platforms:

- Adhesives formulated for non-interference with active pharmaceutical ingredients
- Tailorable adhesion & substrates for prescribed wear times and activity levels
- Secure bonding of weighted devices to skin for short or prolonged wear times
- Gentle removal from skin and hair
- No residue upon removal
- Re-positionable
- Compatible with gamma sterilization
- Biocompatible

Applications:

- Transdermal drug delivery
- Infusion sets
- Patch pumps
- Bolus injectors
Skin-Friendly Adhesives for Body-Attached Medical and Drug-Delivery Devices

The platform of skin-friendly adhesives from Adhesives Research (AR) is designed for the specialized needs of advanced medical and drug delivery devices. Whether your application requires a gently removing adhesive for delicate skin, or a product capable of bonding a weighted device for extended wear, we have a reliable solution.

Available in a range of chemistries and constructions, we can design our skin-friendly formulations to deliver the desired wear times and performance required of each application. We also offer flexibility to coat our PSAs onto a wide range of substrates.

Skin-Friendly Adhesive Products:

Low-Surface Energy Adhesives
Designed for permanent bonds to low-surface energy materials commonly used in medical and drug delivery devices. These adhesives may be used for device attachment in combination with a skin-friendly adhesive on the opposite side.

Weight-Bearing Adhesives
Body-worn drug delivery and patient monitoring devices present unique challenges for securing a weighted device to skin. Our weight-bearing adhesives support immediate device attachment to skin and secure adhesion for wear durations up to 7+ days.

SoftWear® Adhesives
Available in silicone and non-silicone formulations, SoftWear adhesives deliver intimate skin contact and gentle removal to enhance patient comfort and minimize the risk of damage to skin. SoftWear is repositionable and releases cleanly from hair and skin.

Long-Term Wear Adhesives
Designed to deliver secure wear times of 7+ days with minimal edge lift and good breathability. These adhesives remove with minimal pain and no residue.

Electrically Conductive Adhesives
Formulated for transmitting current through layers of a device, forming electrical interconnections and bonding electrical components. Skin-friendly formulations are available.
<table>
<thead>
<tr>
<th>Product Number</th>
<th>Adhesive Family</th>
<th>Carrier</th>
<th>Liner</th>
<th>Total Thickness (w/o liner)</th>
<th>Adhesive Type</th>
<th>Construction/Conductivity</th>
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<tr>
<td>8026</td>
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<td>T/F</td>
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<td>Acrylic</td>
<td>S/F</td>
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<td>S/F</td>
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<td>D/S</td>
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<td>MA-46</td>
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<td>S/F</td>
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<td>x-y-z</td>
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</tbody>
</table>

T/F - Transfer film (adhesive between release liners)
S/F - single face tape
D/S - double sided tape
<table>
<thead>
<tr>
<th>Product Category</th>
<th>Wear Performance</th>
<th>Tailorable Properties</th>
<th>Applications</th>
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</thead>
</table>
| **Low-Surface Energy Adhesives** | • Bonds to wide range of low surface energy materials  
• Low profile, conformable | • Permanent or removable bonds  
• Available in transfer and double-faced formats with skin adhesive on opposite side for flexibility in device assembly | • Active transdermal devices  
• Infusion sets  
• General device bonding  
• Patch pumps |
| **Weight-Bearing Adhesives**    | • Immediate and secure bond of device to skin  
• Good shear resistance for less device movement  
• Removes without compromise to skin integrity  
• Minimal edge lift | • Short term and extended wear duration to 7+ days  
• Adhesion levels  
• Tack  
• MVTR  
• Product construction | • Biosensors  
• Bolus injectors  
• Active transdermal devices  
• Patient monitoring  
• Patch pumps  
• Wound care |
| **SoftWear® Adhesives**         | • Clean release from skin and hair  
• Repositionable  
• Low-pain removal  
• Minimal edge lift | • Wear duration from hours to 3 days  
• Tack  
• Adhesion levels  
• MVTR occlusive to highly breathable  
• Product construction | • Biosensors  
• Bolus injectors  
• Infusion sets  
• IV site dressings  
• Patient monitoring  
• Patch pumps  
• Transdermal drug delivery  
• Wound care |
| **Long-Term Wear Adhesives**    | • Extended wear times  
• Limited adhesive & device creep  
• Secure wear  
• Low pain removal  
• Minimal edge lift | • Wear duration from 3 to 7+ days  
• Tack  
• Adhesion levels  
• MVTR  
• Product construction | • Biosensors  
• IV site dressings  
• Patient monitoring  
• Patch pumps  
• Transdermal drug delivery  
• Wound care |
| **Electrically Conductive Adhesives** | • Thin, reliable bonds with stable consistency  
• Enables electrical conductivity between or across adhesive bonds  
• Stable performance in extreme temperatures & humidity conditions | • X, Y & Z conductivity  
• Volume & surface resistance  
• Adhesion levels  
• Tack | • Medical electronics  
• Medical devices  
• Wearable sensors  
• Transdermal/combination drug delivery device |

Call us for samples and to discuss the benefits of our skin-friendly adhesives for your next project.  
www.adhesivesresearch.com
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AR limits the purchaser’s remedies in the event of a breach of any warranty. The purchaser’s exclusive remedy and AR’s obligations for a breach of any warranty shall be set forth in the Sales Order Acknowledgment.

Note: All stated values are nominal and should only be used as a guide for selection. They are not specifications.

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