# A Legacy of Innovation and Custom Creations

For nearly 60 years Adhesives Research has developed and manufactured custom adhesives and coating technologies around the world. Our innovative products are created for a variety of purposes and industries, including in-vitro diagnostic (IVD) applications used in the medical industry.

We offer our customers complete, custom solutions for products through innovative technologies capable of delivering enhanced performances and novel capabilities to a variety of medical devices. Our custom adhesives opportunities include: cover, spacer, hydrophilic, optically clear, dissolvable film, low leachable and electrically conductive tapes.

## Cover Tapes
A clear or opaque cover film with excellent sealing and variety of assays designed to go over microfluidic devices.

- Non-migratory and inert adhesives
- White or clear film
- Low autofluorescing adhesives and carrier available
- Excellent bond to low surface energy substrates
- Acrylic and silicone adhesive options available
- Wide operating temperature range (-40°C to 120°C)
- Adhesive resistant to dilute solutions of DMSO, acids, alcohols, organic solvents
- Withstands rapid thermal cycling

## Spacer Tapes
A double sided tape with tight thickness control, designed for adhesion to different plastics, metals, and a range of assays.

- Easily die cuttable, non-migratory adhesive
- Polyester or Polypropylene carrier
- Excellent bond to low surface energy substrates
- Acrylic and silicone adhesives available
- Wide operating temperature range (-40°C to 120°C)
- Adhesive resistant to dilute solutions of DMSO, acids, alcohols, organic solvents
- Polyester release liner for clean room use
- Withstands rapid thermal cycling

## Optically Clear Tapes
A clear adhesive designed to have environmental durability and clarity for the bonding of displays and touch screens.

- High shear and peel strength
- Low haze, high clarity and high light transmission
- Non-birefringent
- Very broad temperature range
- Low flammability
- High bond levels to many surfaces, including low energy surfaces
- Silicone and Acrylic adhesives options available
Hydrophilic Tapes
An adhesive designed for diagnostics, microfluidic and medical device applications to contain and support biological fluids.

- Clear coating
- Consistent low contact angle
- Stable to a wide array of temperatures and humidity
- Pressure-sensitive adhesive or heat activated adhesive (recommended sealing temperature of 120-150°C, 15 psi)
- Fast and stable capillary fills
- Printable for brand identification
- Wettable to liquids such as water, urine, blood, etc.
- Provides adhesion to polymer and metalized polymer surfaces

Hydrophilic Coatings
A tailor able film designed to manage flow for diagnostics, biological fluid containment, microfluidic and medical devices.

- Consistent low contact angle
- Stable to a wide array of temperatures and humidity
- Excellent die cutting
- Fast and stable capillary fills
- Clear construction for verification of wicking
- Chemical compatibility in biosensors
- Printable for brand identification
- Wettable to liquids such as water, urine, blood, etc.

Low Leachables & Low Outgassing Tapes
Electronically clean adhesives designed to resist environmental aging and bonding for seals, filters, labels and displays.

- Low total VOCs
- Low extractable ions
- Eliminates contamination and labor costs associated with adhesive residue during rework
- High purity, non-corrosive adhesive film
- Compatible with delicate oxidizable metal depositions

Electrically Conductive Tapes
An adhesive with excellent bonding strength and stability designed for a variety of touch screens and conductive surfaces.

- Thin adhesive layer (1 mil – 4 mils)
- Primarily z axis or x-y-z axis options available
- Pressure-sensitive tape format for instant bonding in electrical interconnect applications
- Acrylic binder resin for good thermal, chemical and oxidative stability
- Tape thickness and flexibility conforms to the topography of “imperfect surfaces” providing excellent contact
<table>
<thead>
<tr>
<th>Product Number</th>
<th>Adhesive</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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<td><strong>Cover Tapes</strong></td>
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<td>D/F</td>
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<td>D/F</td>
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<td><strong>Hydrophilic Tapes</strong></td>
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<td><strong>Hydrophilic Coatings</strong></td>
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<td>Polyester (LCA)</td>
<td>S/F</td>
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</table>

T/F - Transfer film (adhesive between release liners)
S/F - Single face tape
SW - Self-Wound
D/F - Double face tape
LCA - Low Contact Angle
MCA - Medium Contact Angle
ARflow® Hydrophilic Adhesives and Coatings
Efficient fluid transport. Reduced analysis times.

ARflow® hydrophilic technologies from Adhesives Research reduce the surface tension of biological fluids to allow for rapid and consistent wicking in diagnostic devices. ARflow is designed for use in diagnostic devices such as blood coagulation monitors, blood glucose, point-of-care tests, environmental test kits and biotechnology applications.

ARflow hydrophilic technologies provide tailorable flow rates and contact angles ranging <10° to 60° to enable stable, passive fluid transport. These adhesives and coatings are compatible with reagent chemistries, biological samples and are non-interfering with test results.

The ARflow product line includes heat seal adhesives, pressure-sensitive adhesives (PSAs) and non-adhesive coatings. Our adhesives are formulated to bond to low-surface energy and metalized substrates commonly used in diagnostic devices and offer long-term stability in high-temperature and humidity environments.

Benefits of ARflow Products:

**Hydrophilic Heat Seal Adhesives**
- Formulated as non-tacky or tacky adhesives
- Clean die-cutting formulations
- Tailorable bonding
- Bonds to polymeric substrates
- Multiple chemistries available
- Low cold flow for dimensional stability

**Hydrophilic Pressure-Sensitive Adhesives (PSAs)**
- Instant tack forms permanent bonds with minimal pressure
- Ideal for chemistries that are sensitive to heat exposure
- Bonds to polymeric substrates
- Tailorable adhesion
- Inherently and uniformly hydrophilic on all surfaces
- Low cold flow for dimensional stability
- Die-cuttable
- Low fluorescing chemistries

**Hydrophilic Coatings**
- Non-tacky coatings can be applied to a range of rigid substrates
- Ideal as a top component for quick capillary flow
- Low contact angle
- Designed for use in combination with a PSA spacer tape
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Note: All stated values are nominal and should only be used as a guide for selection. They are not specifications.

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