Corporate Description
The consistent quality of our pressure-sensitive adhesive (PSA) products has made Adhesives Research a trusted supplier to the world’s leading manufacturers for nearly half a century.

Our proven adhesive technologies, such as electrically conductive, electronically clean and optically clear adhesives, provide reliable bonds with enhanced performance characteristics to increase the functionality of thin film and polysilicon photovoltaic modules. While we offer a wide range of proven standard products, many customers turn to us for a modified product to address a specific application challenge. Our adhesive formulation and manufacturing expertise provides us the flexibility to quickly develop tailored PSA products. We accomplish this by combining our advanced adhesive technologies with a vast array of specialized substrates and release liners.

Our R&D and manufacturing facilities located in Glen Rock, Pennsylvania and Limerick, Ireland provide extensive product development capabilities backed by complete in-house analytical testing, quality and certification support.

PSA Products Enhance Performance and Efficiency
Our PSAs are a flexible, effective bonding method that also bring added functionality, increased process efficiencies and bonding performance when compared to soldering, liquid epoxies and mechanical fasteners. Our products:

- Bond instantly to low surface energy surfaces
- Conform to flexible constructions
- Deliver uniform adhesive thickness
- Demonstrate UV and environmental stability
- Resist corrosion with electronically clean formulations
- Demonstrate reliable and stable conductivity
- Facilitate in-line process/roll-to-roll manufacturing

Applications for PSAs in Photovoltaic Modules
Our high-performance adhesive technologies can be developed into various product constructions to address the challenging bonding applications of the solar industry, including:

- Bus bars
- Module frame assembly and mounting
- Encapsulation in flexible film modules
- Cell interconnects
- Junction box mounting
- Wafer positioning
Solar Applications for PSAs

- Frame Foam Tape
- Encapsulation
- Cell Positioning or Spacer Tapes between cells
- Bus Bar Conductive Foil Tape
- Encapsulation
- Bonding Tape
- Junction Box
Advanced Technology & Manufacturing

Adhesive Technologies
Our wide-range of adhesive technologies increases the functionality of your product with strong, reliable bonds combined with other high-performance properties required for solar applications.

Electrically Conductive Adhesives
Our electrically conductive PSAs feature our patented homogenous conductive adhesives that form stable conductive bonds to electrical contact points under a wide range of environmental conditions. The adhesive can be provided in a transfer adhesive format, or coated onto a tin-plated copper foil backing as an alternative bus bar material for delivering highly-reliable conductivity in thin film photovoltaic modules.

Electronically Clean, Low Outgassing Tapes
ARclean® electronically clean adhesives are acrylic, acid-free, organotin-free, have low extractable ions, pass leak tests when used as seals and offer excellent resistance to corrosion and environmental aging.

Optically Clear Tapes
Our ARclear® line of defect-free optically clear adhesives offers low haze, high clarity and light transmission while reliably bonding flexible-to-flexible or flexible-to-rigid optical components. These adhesives are environmentally durable to resist temperature extremes, humidity and UV exposure.

Flexible Encapsulation and Barrier Systems
Our dual-stage PSA technologies are cured by heat or UV light to form structural bonds. This enables strong, yet flexible bonds while providing moisture and oxygen barrier properties required for dependable encapsulation.

Mechanical Bonding & Assembly
Our broad range of high-performance double-coated PSA foams or films, transfer and thermally conductive adhesives offer significant advantages over mechanical fasteners, liquid adhesives or epoxies for general assembly. Easy-to-apply and clean to process, these PSAs require no cure time and are solvent-free. They offer consistent application thickness, allow for thermal expansion and contraction, and are ideal for bonding irregular or dissimilar surfaces.

Manufacturing, Testing and Certification
The quality system for both our North American and European manufacturing facilities is ISO-9001 certified. We offer equivalent formulation and manufacturing capabilities at each of our facilities, including polymer synthesis, mixing and compounding, casting and drying, slitting and packaging as well as custom release liner development.

Analytical Testing
Our comprehensive U.S. and European analytical laboratories offer capabilities for simulating the environmental conditions that must be met to assure the long-term performance of our products in demanding solar applications. Some examples of these include:
- Outgas evaluation
- Heat and humidity testing
- UV stability
- Bulk and surface electrical conductivity analysis

Product Certification
Adhesives Research offers UL-rated products and we work directly with customers to obtain the proper certifications for their products as necessary.
DISCLAIMER
AR expressly warrants to Purchaser that its product, under normal and intended use maintenance and storage, is free from defects in workmanship for twelve (12) months from the date of shipment, unless otherwise stated. THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER WARRANTIES. AR MAKES NO WARRANTY AS TO EXPERIMENTAL AND DEVELOPMENTAL SAMPLES OR MATERIALS. AR MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. No provisions, representations, diagrams, drawings or pictures contained in any product literature, price list, catalogue, purchase order, product data sheet, order acknowledgment, invoice, delivery ticket, or any other communication by AR, including information on AR’s website or representations made by AR’s employees or agents, constitute express warranties. Results of tests and recommendations included in communications of AR do not constitute express warranties. SINCE MANY FACTORS MAY AFFECT THE USE AND PERFORMANCE OF AN AR PRODUCT IN A PARTICULAR APPLICATION, INCLUDING, AMONG OTHERS, THE PRODUCT SELECTED FOR USE, THE CONDITIONS IN WHICH THE PRODUCT IS USED, THE TIME AND ENVIRONMENTAL CONDITIONS IN WHICH THE PRODUCT IS EXPECTED TO PERFORM, THE MATERIALS TO BE USED WITH THE PRODUCT, THE SURFACE PREPARATION OF THOSE MATERIALS, AND THE APPLICATION METHOD FOR THE PRODUCT, PURCHASER ACCEPTS RESPONSIBILITY FOR DETERMINING WHETHER AR’S PRODUCT IS FIT FOR A PARTICULAR PURPOSE AND SUITABLE FOR PURCHASER’S METHOD OF APPLICATION. AR retains the right to modify or change the composition, design, color and appearance of the goods if in AR’s judgment it is advisable. Purchaser’s exclusive remedy and AR’s sole obligation for any breach of warranty is limited to, at AR’s option, either: 1) replacement of AR’s product, or 2) reimbursement of the purchase price of AR’s product. AR DISCLAIMS ANY OTHER OBLIGATION OR LIABILITIES ARISING OUT OF BREACH OF WARRANTY. AR will not be liable of any loss, damage, expense or consequential, incidental or special damages of any kind.