

Adhesives Research (AR) is one of the world's leading independent developers and manufacturers of high-performance pressure-sensitive adhesive (PSA) systems, films and tapes used in the display and touchscreen industry. Our broad base of adhesive technologies, independent status and long range commitment to this market enable us to support your display development programs. We offer custom capabilities in polymerization, mixing, adhesive coating and release liner design. All this is supported by extensive R&D expertise.



AR works directly with display and touchscreen OEMS, offering a unique group of PSA technologies for the assembly of their products.

ARclear® Optically clear adhesives features:

- Manufacturing efficiency over liquid adhesives and improved clarity.
- Defect-free bonding of flexible-to-flexible, flexible-to-rigid and rigid-to-rigid materials.
- Custom coating onto specific or supplied substrates.
- Extremely low refractive index, light enhancing properties, longevity of touchscreens and low flammability.
- Low haze, very broad temperature range and non-birefringent.

ARclear® Optically clear adhesives are available in the following constructions:



ARclear® Optical Acrylic PSAs:

- Melt process/UV cure-in-place PSA constructions.
- Dual process offers greater control for achieving clean laminations.
- 25 μm adhesive thickness.
- Refractive index 1.47



ARclear® Optical Rubber PSAs:

- Transfer adhesive construction with a thickness range of 12.5 μm - 62.5 μm .
- High refractive index 1.52.
- Good moisture barrier properties (2-3 g-mil/m²-day at 25° C, 100% RH).
- Performs well in heated and non-heated lamination processes.



ARclear® Optical Silicone PSAs:

- Transfer adhesive construction with a thickness range of 40 μm - 250 μm .
- High heat resistance (up to 260° C) and flame resistant.
- Low refractive index 1.41
- Performs well in high and low temperature conditions.

Self-Wetting Adhesives:

- Adhesive virtually self-applies by spontaneously “wetting out” onto smooth surfaces.
- Ultra low peels with no build-up.
- Cleanly removable / repositionable / reusable – even for extended periods of time.
- High shear resistance prevents displacement.
- Supplied on scratch and chemical-resistant, anti-glare and clear hard-coated films.



Display and Touchscreen Adhesive Products

Product	Caliper	Adhesive	Carrier	Release Liner	Peel Adhesion	Haze	Optical Clarify	Properties Transmission	Refractive Index
ARclear® 92524	25 µm	Optically Clear Acrylic	None	Polyester	14.5 N/25mm SS	<0.5%	>98%	>99%	1.47
Non-birefringent, unsupported transfer adhesive for bonding optical components in flat panel displays, LCDs, projection screens and touch screens.									
ARclear® 92170	126 µm	Optically Clear Self Wetting	75 µm Anti-Glare Hard-Coated PET	Polyester	0.06 N/25mm Glass	8%	68%	90%	1.46
75 µm anti-glare, hard-coated polyester film with self-wetting adhesive, projection screens and touch screens.									
ARclear® 92734	25 µm	Optically Clear Rubber	None	PET	16.68 N/25mm Glass	0.04%	87.50%	99.80%	1.52
25 µm unsupported transfer film with optically clear and moisture barrier adhesive.									
ARclear® 93453	12.5 µm	Optically Clear Rubber	None	Polyester	6.67 N/25mm Glass	0.04%	87.5%	99.8%	1.52
12.5 µm unsupported transfer film with optically clear and moisture barrier adhesive.									
ARclear® 93230	62.5 µm	Optically Clear Rubber	None	PET	28.87 N/25mm Glass	<1.0%	>98%	>99%	1.52
62.5 µm high peel, optically clear rubber adhesive with low water vapour transmission rates (WVTR).									
ARclear® 93495	40 µm	Optically Clear Silicone	None	PET	16.68 - 19.46 N/25mm Glass	1%	98 - 99%	99%	1.41
40 µm optically clear silicone transfer adhesive coated between two fluorosilicone release liners.									
ARclear® 93408	150 µm	Optically Clear Silicone	None	Polyester	23.63 N/25mm Glass	<1.0%	>98%	>98%	1.41
150 µm optically clear, high peel, thick silicone pressure sensitive adhesive.									
ARclear® 93338	250 µm	Optically Clear Silicone	None	Polyester	23.63 N/25mm Glass	<1.0%	>98%	>98%	1.41
250 µm optically clear, high peel, thick silicone pressure sensitive adhesive.									

*This is just a selection of our products.

*Please refer to the product information sheets for specific detail.

Optically Clear Adhesives Product Overview




DISCLAIMER OF WARRANTIES

AR's warranty on product is limited to the warranty set forth in the Sales Order Acknowledgment. NOTHING SET FORTH IN THIS PRODUCT LITERATURE SHALL CONSTITUTE A WARRANTY OF ANY KIND AND EXCEPT AS SET FORTH IN THE SALES ORDER ACKNOWLEDGMENT. UNLESS OTHERWISE STATED IN A SALES ORDER ACKNOWLEDGMENT, AR EXPRESSLY DISCLAIMS ALL WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. No provisions, statements, 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 statements 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. 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; THEREFORE, 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 its products if in AR's judgment it is advisable.

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 as set forth in the Sales Order Acknowledgment.

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