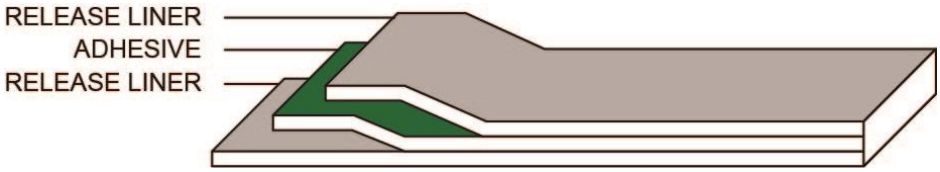
Product Information Sheet
ARclear® 44110

Adhesives Research®

ARclear® 44110 is an optically clear moisture barrier pressure-sensitive adhesive (PSA) transfer tape.

PRODUCT APPLICATIONS

The typical use for this product is as a moisture barrier adhesive in various electronics and optical device applications. It is suitable for use in combination with high-barrier films such as inorganically coated plastics. It exhibits good adhesion to a variety of substrates. The adhesive is uncrosslinked and, as such, is not recommended for high-shear and high-temperature applications.



FEATURES AND BENEFITS

- High optical transmission, high clarity, low haze, and non-yellowing
- Optically clear transfer film with good moisture barrier properties
- Hydrophobic adhesive with excellent thermooxidative and UV stability
- Easy, mess-free processing and bonding

Product Construction			
	Typical Values*		Description
Liner thickness	2.0 mil	51 µm	Clear PET easy release liner
Adhesive thickness	1.0 mil	25 µm	Optically clear PIB PSA
Liner thickness	5.0 mil	127 µm	Clear PET tight release liner
Total thickness	1.0 mil	25 µm	(Excluding liner)

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

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Technical Properties			
Attribute*	Typical Values*		Test Method*
Peel adhesion on stainless steel (180°, 6 in/min, 1h dwell)	50 oz/in	14 N/25.4 mm	ASTM D3330
Peel adhesion on glass (180°, 6 in/min, 1h dwell)	60 oz/in	17 N/25.4 mm	ASTM D3330
Peel adhesion on polycarbonate (180°, 12 in/min, 1h dwell)	75 oz/in	21 N/25.4 mm	ASTM D3330
Peel adhesion on PET (180°, 12 in/min, 1h dwell)	68 oz/in	19 N/25.4 mm	ASTM D3330
Peel adhesion on PMMA (180°, 12 in/min, 1h dwell)	78 oz/in	22 N/25.4 mm	ASTM D3330
Release of easy liner (180°, 300 in/min)	8 g/2 in		ASTM D5375
Release of tight liner (180°, 300 in/min)	40 g/2 in		ASTM D5375
Refractive index	1.52		ASTM D542
Optical properties	Transmission: Haze: Clarity:	100% 0.4% 99.4%	ASTM D1003
Recommended storage of unconverted product	70°F ± 20°F 50% ± 20% RH	21°C ± 11°C 50% ± 20% RH	
Shelf life of unconverted product	Not to exceed one year from date of manufacture		

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Note: The information contained on this data sheet is based upon test results of limited quantities of this material and may be modified by Adhesives Research following additional production experience and evaluation. This data should not be used in preparing specifications. Products identified as developmental may be subject to modification by Adhesives Research, Inc.

APPLICATION AND STORAGE OF PRESSURE-SENSITIVE ADHESIVE TAPES

Pressure-sensitive adhesive tapes function as a mechanical product; however, the adhesive itself is a chemical composition that can be sensitive to environmental conditions. A purchaser of pressure-sensitive adhesive products should be aware of the shelf life of each product and not purchase more than it can use before the expiration date. Shipping and storage conditions affect shelf life. The optimum storage temperature is 70 °F (21 °C). Cool, dry storage is recommended.

For best results…

1) The surfaces you wish to bond should be clean and free of oil, moisture and dust. If the surface temperature is below 40°F, it may be difficult to achieve a proper bond.
2) Do not use a pressure-sensitive adhesive product where it will be exposed to temperatures lower or higher than those designated for each product. Heat can destroy the effectiveness of the bond and extreme cold can cause the adhesive to harden and not adhere properly.
3) When the tape is applied, use firm hand or lamination pressure to achieve contact between the adhesive and the surface to which it is applied. Hand rollers or nip rollers may be needed for certain products or applications.

Consult your AR sales representative if you need additional information.

THIS IS NOT AN OFFER

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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 as set forth in the Sales Order Acknowledgment.

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