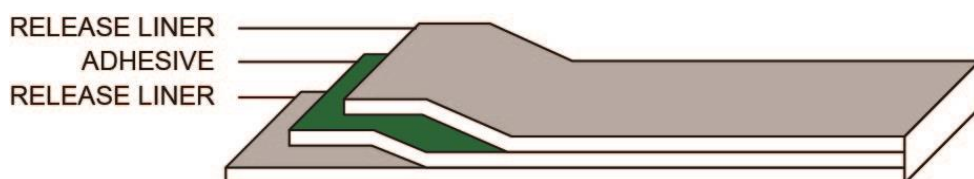


ARclear® 42005 is an optically clear, silicone pressure-sensitive adhesive (PSA) transfer tape.

PRODUCT APPLICATIONS

The typical use for this product is for bonding of flexible-to-flexible or flexible-to-rigid optical components such as backlights, polarizers, filters, retarders and diffusers, and holographic, anti-reflective and hard-coated films used in projection screens, touch screens, LCDs and flat panel displays.



FEATURES AND BENEFITS

- Low haze, high clarity, and high light transmission
- Functional over a broad range of temperatures from -70 °C to over 250 °C
- High adhesion to glass, PMMA and polarizer substrates
- Environmentally durable and resists temperature extremes, humidity and UV light
- 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	0.5 mil	12.7 µm	Silicone optically clear adhesive
Liner thickness	4.0 mil	102 µm	Clear PET tight release liner
Total thickness	0.5 mil	12.7 µm	(Excluding liner)

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

Product Information Sheet

ARclear® 42005



Technical Properties			
Attribute*	Typical Values*		Test Method*
Peel adhesion on glass (180°, 12 in/min, 1 h dwell)	52 oz/in	15 N/25.4 mm	ASTM D3330
Peel adhesion on polycarbonate (180°, 12 in/min, 1 h dwell)	27 oz/in	7.5 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)	20 g/2 in		ASTM D5375
Refractive index	1.41		ASTM D542
Optical properties	Transmission:	100%	ASTM D1003
	Haze:	0.4%	
	Clarity:	99%	
Color (CIE94, D65 illuminant, 10°)	L*:	99.9	ASTM E1331
	a*:	0.01	
	b*:	0.06	
Yellowness index	0.12		ASTM E313
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		

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

Product Information Sheet

ARclear® 42005



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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