

ARclad® 8044

Thermal Management Tape



FEATURES

- Double-coated aluminum foil tape
- Tear resistant polyester liner

BENEFITS

- Maximum thermal conductivity and gap filling ability
- Weight reduction through elimination of mechanical fasteners
- Elimination of migration and dust collection associated with thermal greases

PRODUCT APPLICATIONS

Suggested for bonding heat sinks to microprocessors and other IC's. Users should assure the product meets the specific needs of their application(s). Adhesives Research can tailor the product to meet the needs of specific applications as requested by customers.

PRODUCT CONSTRUCTION - Typical Values

Liner:	2.0 mils
Adhesive:	2.0 mils
Carrier:	1.5 mils
Adhesive:	2.0 mils
Liner:	<u>2.0 mils</u>
Total:	9.5 mils nominal

Test Methods:

PSTC-33, ASTM D-1000, ART #5006

ADHESIVE PROPERTIES - Typical Values

Thermal Impedance ($^{\circ}\text{C in}^2/\text{watt}$):	0.41
Thermal Conductivity ($\text{watt}/\text{m}\cdot^{\circ}\text{K}$):	0.47

180° Peel Adhesion/12" min.

5'/SS - 35 oz./in.

Test Methods:

PSTC-3, ASTM D-3300, ART #1005

STATIC SHEAR - Typical Values

Z Tensile Adhesion (PSI):	38
Dynamic Shear (PSI):	29

Test Methods:

DART #3020 and DART #3027

STORAGE AND SHELF LIFE

One year when stored at 70°F, 50% R.H.

SERVICE TEMPERATURE RANGES

Recommended Minimum Application Temperature:	50°F (10°C)
Maximum Operating Temperature:	300°F (149°C)

(Revised - 06/21/00)

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.

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