

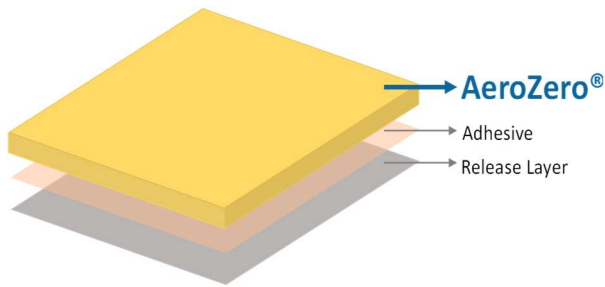


BLUESHIFT®

PRODUCT DATA SHEET

ROCKETAPE

ROCKETAPE™ RTAZS Heat Resistant Thermal Insulation Tape



Features

- Ultra-thin and lightweight thermal insulation tape
- Easy peel and stick application to flat or complex 3D surfaces
- Excellent adhesion onto a wide range of substrates
- Efficient low-profile insulation for interior surfaces
- Ultra-low thermal conductivity and diffusivity
 - Reduces the amount and rate of heat flow
 - Protects sensitive components from extreme temperature swings
 - Lowers surface contact temperatures
 - Hot spot reduction
 - Enhances thermal endurance of parts/devices
 - Enables component size reduction (miniaturization)
- Inherently flame retardant (UL94 VTM-0 compliant)

Product Description

RTAZS consists of a standard 6.5-mil AeroZero® polyimide aerogel film with a 1-mil adhesive applied onto a single side. The adhesive is a high-performance engineering grade silicone pressure sensitive adhesive (PSA) with a release layer that is peeled off before application to a substrate. Potential substrates include stainless steel, aluminum, glass, and polymer substrates such as carbon fiber, polyimides, polyether ketones, polyurethanes, and polyesters. Typical use is thermal barrier/protection of parts used in the Aerospace, Defense, Electronics & Communications Equipment, and High-Performance Racing industries.

Storage

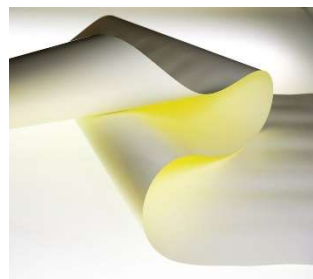
Recommended storage conditions:
Temperature: below 25°C (~77°F)
Relative Humidity: below 50%

Applications

- Electronics and communications equipment
- Semi-conductors and medical devices
- High performance race cars and boats
- Rockets, supersonic munitions, and aircraft

Standard Dimensions

- Standard Roll: 1 in wide x 25 ft long
Other sizes available upon request



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Date Updated: 8/2/2022



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PHYSICAL AND MECHANICAL PROPERTIES	METHOD	VALUE	UNITS
Thickness	In-house method	190 ± 38 (7.5 ± 1.5)	µm (mil)
Tensile Strength	ASTM D882-12	7.2 ± 1.5 (1.0 ± 0.3)	MPa (ksi)
Young's Modulus	ASTM D882-12	250 ± 75 (36 ± 11)	MPa (ksi)
Tensile Elongation at Break	ASTM D882-12	6 ± 2	%
Density	In-house method	0.38 ± 0.05	g/cm ³
THERMAL PROPERTIES	METHOD	VALUE	UNITS
Thermal Conductivity (23 °C)	ASTM C518-21	0.038 ± 0.003	W/m*K
THERMOMECHANICAL PROPERTIES	METHOD	VALUE	UNITS
Glass Transition Temperature (AeroZero Tg, DMA)	ASTM E1640-13	305 (580)	°C (°F)
Decomposition Temperature (10 wt% loss, TGA)	ASTM E2550-17	410 (770)	°C (°F)
ADDITIONAL PROPERTIES	METHOD	VALUE	UNITS
Adhesive strength: 180° peel/3 day-RT dwell time			
180° peel/ Rocketape on 2-mil Al Foil	ASTM D330	> 300 (1.7)	N/m (lb/in)
UL Flammability Rating	UL94VTM	VTM-0	-

Data within this table are typical values for the listed product. The above data is not intended to indicate product specifications. Actual product specifications are available upon request.

Application

Prepare the surface by removing any loose particles, wipe the surface with isopropyl alcohol and allow to dry. Remove the release liner from the tape and apply to the surface with adequate finger or mechanical pressure. Standard application temperature is 25 °C (72 °F) and the minimum application temperature is 10 °C (50 °F). The minimum set time is 24 hours before performing any tests, with maximum adhesion being reached at 72 hrs. Increasing the temperature and dwell time may increase adhesion strength.

Blueshift products are manufactured under a certified AS9100D/ISO9001:2015 Quality Management System facility. For more information on Blueshift Film and Laminate products, please visit our website.

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