

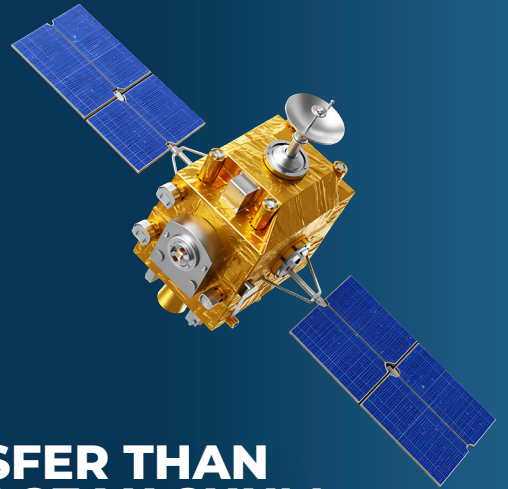


BLUESHIFT

LOW OUTGASSING THERMAL PROTECTION

KEY FEATURES

- Ultra-low thermal conductivity
- Ultra-low thermal diffusivity
- Flexible, lightweight, and thin
- RF transparent
- Peel-and-stick
- 85% air composition
- NASA ASTM E595 certified
- Cyclical thermal protection (-180 °C to 300 °C)

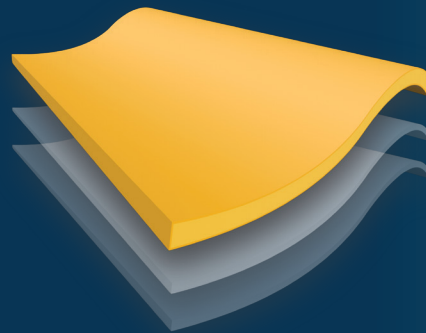


**40x BETTER AT BLOCKING HEAT TRANSFER THAN
TRADITIONAL POLYIMIDE TAPES IN SPACE VACUUM**

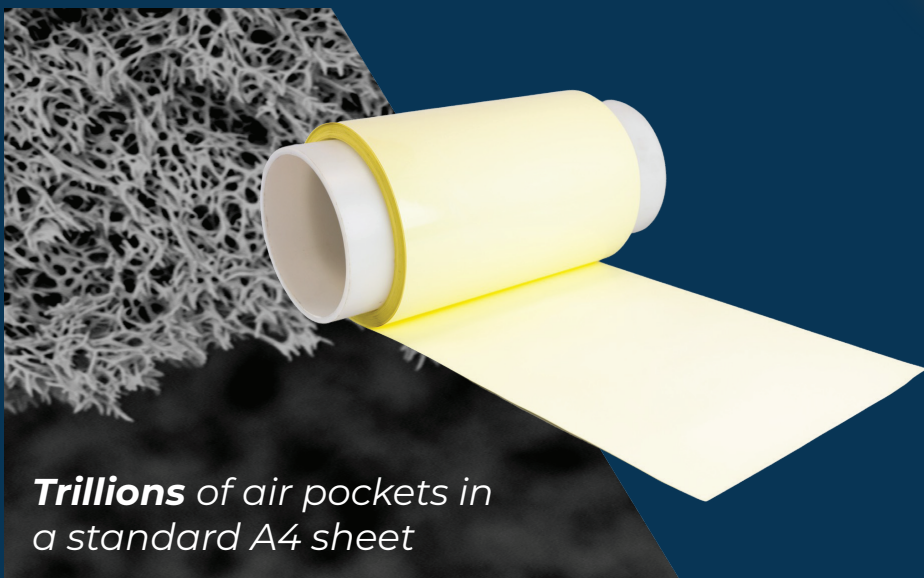
Applications

- Composite structures
- Harness wrapping
- Spacecraft skins
- Electronics protection
- Optics, sensors, and detectors
- Vacuum chamber systems
- Solar cell protection
- High-density batteries

AZ-TPS



- - - → AeroZero®
- - - → Adhesive
- - - → Release Liner



Trillions of air pockets in
a standard A4 sheet

+1 (888) 350-7586

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www.blueshiftmaterials.com

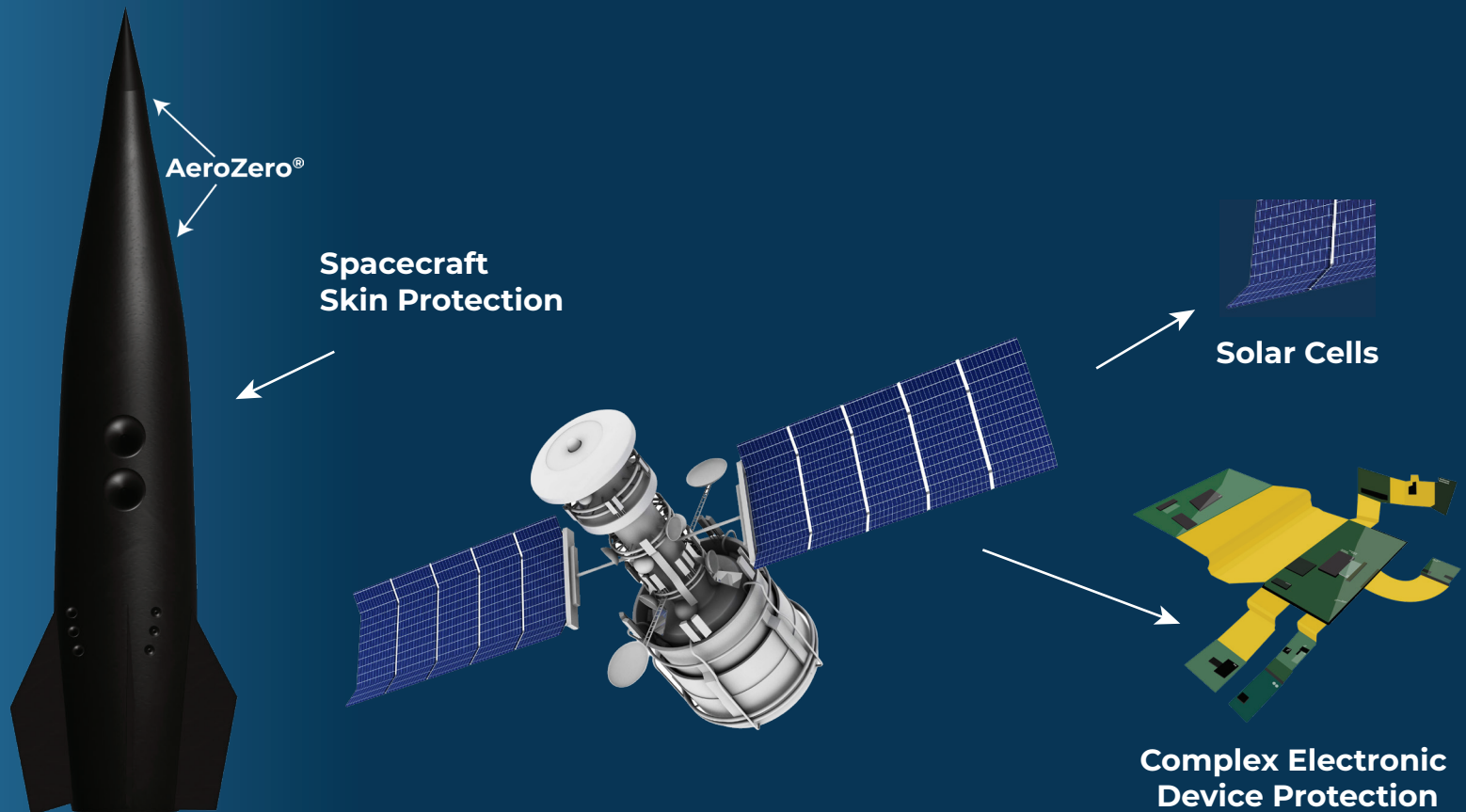
NEW SATELLITE DESIGNS ARE OUTPACING TRADITIONAL MATERIAL SOLUTIONS

Built for the New Space Race

- Thermal conductivity in space vacuum: $0.008 \text{ W/m}\cdot\text{K}$ (Pressure = $<10^{-5} \text{ Torr}$)
 - Thermal diffusivity in space vacuum: $0.034 \text{ MM}^2/\text{s}$ (pressure = $<10^{-5} \text{ Torr}$)
 - Proven in **10,000+ ft²** of deployed spacecraft
 - Meets NASA's ASTM E595 outgassing standards

Why Engineers Are Using Our Materials:

- Compared with traditional polyimide in a space vacuum, AZ-Tapes offer:
 - **15x** lower thermal conductivity
 - **3x** lower thermal diffusivity
- Electrical Insulation & RF Transparency
- Lightweight and flexible
 - 85% air-core technology, thin profile ($<200 \mu\text{m}$)
- Peel-and-stick



All products can be configured with a variety of functional layers