

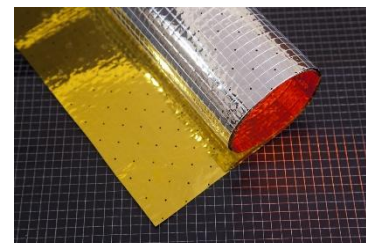
BA 4975

ULA #0-06095-5

HTCRC / VDA / 50 GA POLYIMIDE / FIBERGLASS 116 / PERFORATED

Description:

BA 4975 is a perforated 50-gauge polyimide film aluminized on one side, coated with a corrosion-resistant coating and reinforced on the other side with 116 glass fabric. It is used as an inner layer on MLI blankets to resist tearing from handling or contact with the spacecraft bus, complies with ASTM D-5213 and comes in a standard 48 in (1.22 m) width. Holes of 0.125 in diameter at a density of 0.2 holes/in² (straight pattern); more than 45 lb/in warp tensile strength.



Features & Benefits:

- Perforated: 0.125 in holes, 0.2 holes/in², straight pattern
- Excellent physical, thermal, electrical and optical properties: emittance ≤ 0.04 (VDA side), ≥ 0.80 (fiberglass side)
- Outgassing TML < 1.0%, CVCM < 0.1% (ASTM E595)
- Continuous -300 to 400 °F, intermittent -420 to 600 °F

Applications:

Inner layer on MLI blankets

Tear resistance against handling and contact with the spacecraft bus

Construction/ Typical Properties	Value		Test Method
Metallization Type:	99.99 % pure aluminum		
Metallization Deposition:	300 Å Minimum		
Electrical Resistance:	≤ 1.0 Ohms/square		ASTM D257
Optical Emittance (VDA Side):	≤ 0.04		ASTM E408
Optical Emittance (Fiberglass Side):	≥ 0.80		ASTM E408
Optical Absorptance (VDA Side):	≤ 0.14		ASTM E903/ASTM E490
Optical Absorptance (Fiberglass Side):	≤ 0.35		ASTM E903/ASTM E490
Chemical Salt Spray Resistance:	No Visible Degradation		ASTM B117 (5% / 168 hrs)
Perforation Pattern:	Hole Diameter: 0.125 ± 0.01 inches, Hole Center: 3.936 x 1.300, Density: 0.2 ± 0.01 holes/in ² , Open Area: 0.25 ± 0.5%; Pattern: Straight		
Weight:	<153 g/m ²		
Outgassing:	TML - WVR < 1.0%; CVCM < 0.1%.		ASTM E595
Shelf Life:	This product shall meet the above specified values for no less than 12 months from the date of manufacture, provided the material is sealed/stored in the original packaging materials @ 19°C +/- 9°C (65°F +/- 15°F) in 50% RH +/- 10%.		
	Imperial	Metric	
116 Glass Thickness:	3 mils	76.2 µm	
Film Thickness:	0.5 mils	12.7 µm	

Total Thickness:	<5.8 mils	147 µm	ASTM D1000
Interply Adhesion:	>1.0 lb/in	>1.75 N/cm	ASTM D903
Tensile Strength (warp):	>45 lb/in	>78.8 N/cm	ASTM D882A
Tensile Strength (fill):	>35 lb/in	>61.3 N/cm	ASTM D882A
Thermal (Intermittent):	-420°F to 600°F	-250°C to 315°C	
Thermal (Continuous):	-300°F to 400°F	-150°C to 200°C	

“THESE COMMODITIES ARE REGULATED UNDER EAR ECCN 1A003 AND CAN ONLY BE EXPORTED IN COMPLIANCE WITH THE US DEPARTMENT OF COMMERCE.”

The physical properties listed above are typical values and are not to be construed as specifications. Our suggestions and recommendations for use are based on tests we believe to be reliable. Bron Aerotech does not warrant that the product is fit for any particular purpose. Purchaser must determine suitability of the product for the intended use. Bron Aerotech, Inc. assumes no liability for claims beyond the replacement value of our product proved to be defective. Manufactured for and distributed by Bron Aerotech.

Copyright© Bron Aerotech
Last Updated: 10/4/2026