AIRLOY® HR116 SHEET

Airloy HR116 is an ultralight, nonflammable, structural superinsulating material with a maximum operating temperature of 300°C and excellent resistance to water and humidity. Durable and flexible, Airloy HR116 serves as a dust-free alternative to silica aerogel-based superinsulating materials for applications that call for maximal insulating performance when space is at a premium. Easy to wrap, cut, and adhere. Made with NASA technology.

Composition	Polyimide aerogel/polyaramid fiber composite
Available Thicknesses	0.6 in / 1.5 mm
Bulk Density	0.24 g/cc ± 0.02
Average Pore Size	15 nm
Thermal Conductivity	28 mW/m-K @ 25°C
R-Value Per Inch	5.0
Max Operating Temperature	300°C
Nonflammable	Yes
Liquid Water Uptake After 24 h	13 w/w %
Ultimate Tensile Strength	12 MPa
Tensile Modulus	130 MPa
Compressive Strength	1 MPa
Compressive Modulus	40 MPa
Sound Transmission Loss	>20 dB/cm over 300-5,000 Hz

PRODUCT FEATURES

- Maximizes insulative performance while minimizing thickness
- Dust-free, flexible, and durable
- Wraps and flexes without fracturing
- Bending radius of 1 cm
- Easy to cut, composite, and adhere
- Nonflammable
- Hydrophobic
- Rated for high-temperature service

APPLICATIONS

- Pipe, hose, and equipment insulation
- Thermal breaks for studs and I-beams
- Automotive engine compartment components
- 25.853-compliant galley furnishings
- Fire-proof barriers for electric vehicle battery packs
- Insulative apparel and footwear
- Heat steering layers for consumer electronics
- High-efficiency sound-reflecting barriers
- Pressure wave-reflecting layers for armor