

NEWSPACE MARKET · COMPANY PROFILE



Aerospace Fabrication and Materials, LLC

United States · aerospacefab.com

17

PRODUCTS

14

WITH DATASHEETS

newspacemarket.com/companies/aerospace-fabrication-and-materials-llc/

as of 27 August 2026

Aerospace Fabrication and Materials, LLC

Aerospace Fabrication and Materials, LLC designs, manufactures, and installs multilayer insulation (MLI) blankets and passive thermal control products. They also fabricate soft goods and insulation solutions for extreme aerospace and cryogenic environments.

This profile is generated from the live NewSpace Market catalogue. Specifications are as published by the manufacturer; every product links to a page where a request for quotation reaches the company directly.

PRODUCTS

Product catalogue



AEROSPACE FABRICATION AND MATERIALS, LLC
Astrawrap™ HT

Astrawrap™ HT is a prefabricated multilayer insulation layup designed for high-temperature space applications up to 500°F, combining polyimide film with Dacron netting for optimal

Standard material width	48 inches
Standard length	10 linear feet
Operating temperature	-452 (-269) to +300 (149) °F(°C)

[price on request](#) [datasheet](#)

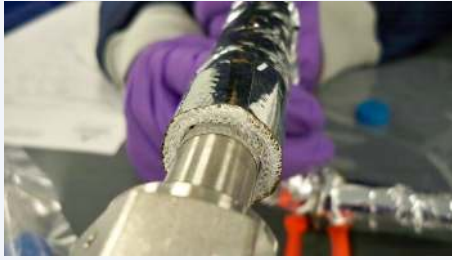


AEROSPACE FABRICATION AND MATERIALS, LLC
Astrawrap™ Thermal Insulation Space Wrap

Astrawrap™ is a versatile thermal insulation wrap, ideal for aerospace applications including satellites, launch vehicles, and space stations, ensuring optimal thermal performance

Film Thickness	0.25 mil (6 µm)
Max Temperature	250°F
Standard Length	10 feet
Standard Width	48 inches
Custom Width	up to 54 inches
Reflector Layers	10, 15, 20 (customizable)

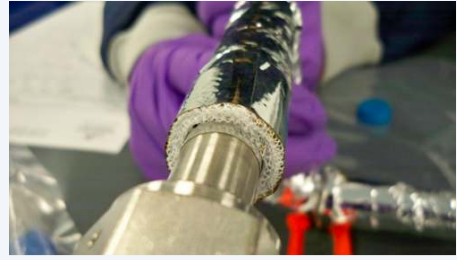
[price on request](#) [datasheet](#)



AEROSPACE FABRICATION AND MATERIALS, LLC
Cryogenic Cabling

Cryogenic cable superinsulation is built from a combination of reflective thin films and low thermally conductive fabric spacer material that lessens heat flux, effectively maintain

price on request [datasheet](#)



AEROSPACE FABRICATION AND MATERIALS, LLC
Cryogenic Multilayer Superinsulation

Aerospace Fabrication offers quality cryogenic multilayer superinsulation systems for thermal control in various applications, including cryogenic cabling and tank insulation.

Operating temperature **below -100 °C**

price on request



AEROSPACE FABRICATION AND MATERIALS, LLC
Cryogenic Tanks

Aerospace Fabrication & Materials produces a wide range of engineered solutions for cryogenic tanks, systems, and subsystems, providing effective thermal control in vacuum envi

price on request [datasheet](#)



AEROSPACE FABRICATION AND MATERIALS, LLC
Custom Soft Goods Manufacturing

Aerospace Fabrication & Materials offers custom fabricated covers for environmental protection of space-bound hardware, including passive thermal protection, impact resistance,

price on request [datasheet](#)



AEROSPACE FABRICATION AND MATERIALS, LLC
High Temperature Plume Shields

AFM fabricates specialized MLI blankets and plume shields designed to withstand extreme high temperatures around engine nozzles and other heat sources.

Temperature Range **300C to 1,000C and above**

price on request [datasheet](#)



AEROSPACE FABRICATION AND MATERIALS, LLC
MMOD Shields

AFM's MMOD shields utilize cutting-edge materials, including Beta Cloth, Kevlar®, and Nextel® fabrics, to provide unparalleled protection for spacecraft against high-velocity micro

price on request [datasheet](#)



AEROSPACE FABRICATION AND MATERIALS, LLC
Multilayer Insulation Blankets

Multilayer Insulation (MLI) blankets provide passive thermal control to a variety of spacecraft, launch vehicles, and instruments in vacuum by limiting radiative heat transfer.

Operating temperature -250...+1300 °C

[price on request](#) [datasheet](#)

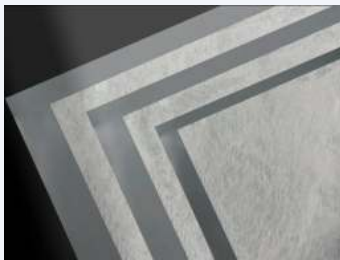


AEROSPACE FABRICATION AND MATERIALS, LLC
PolaLam

PolaLam™ is a durable cryogenic insulation laminate designed for enhanced handling and increased tear resistance without significant thermal performance sacrifice.

Spacer layer thickness	5.0 mil
Roll Width	2 inches
Roll Length	100 linear feet
Operating temperature	-452 °F
Areal Density per layer pair	0.034 kg/m2
Tear propagation resistance	9.9 N
Thickness	0.14 mm

[price on request](#) [datasheet](#)



AEROSPACE FABRICATION AND MATERIALS, LLC
PolaPair™

PolaPair™ is a cryogenic superinsulation subsystem combining a single reflector layer and separator, available in standard lengths and custom widths for various insulation system r

Standard Lengths	100, 200, and 500 feet
Custom Widths	up to 86 inches
Aluminum Coating (PP001-56)	One Sided
Crinkled (PP001-56)	No
Perforated (PP001-56)	No
Aluminum Coating (PP002-56)	One Sided
Crinkled (PP002-56)	Yes

[price on request](#) [datasheet](#)



AEROSPACE FABRICATION AND MATERIALS, LLC
PolaTape™

PolaTape™ is an aluminized reflective tape optimized for use in the construction and installation of cryogenic insulation systems, offering excellent reflective properties and flex

Material	Polyester-based aluminized reflective tape
Roll Length	216 linear feet
Standard Widths	1-inch, 2-inch
Minimum Order Quantity	1 roll

[price on request](#) [datasheet](#)

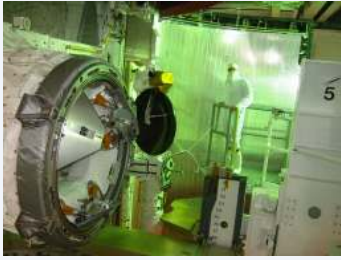


AEROSPACE FABRICATION AND MATERIALS, LLC
PolaWrap™

PolaWrap™ is a custom prefabricated layup of superinsulation, available in standard configurations of 10 foot length and custom widths up to 86 inches.

Reflector separation spacer thickness	5.0 mil (127 μm)
Standard material width	56 inches
Standard length	10 linear feet
Maximum width	86 inches
Number of layers (standard options)	10, 15, or 20 Layers
Average Operating Temperature	-452 (-269) to +250 (121) °F(°C)
Areal Density (10 layers)	0.34 kg/m2

price on request [datasheet](#)



AEROSPACE FABRICATION AND MATERIALS, LLC
Radiators

Aerospace Fabrication personnel can provide specialty coated tapes for use as First Optical Solar Reflectors (FOSR) and are experienced in their application and installation for sa

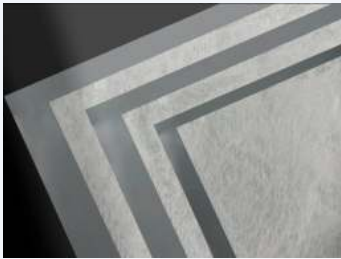
price on request [datasheet](#)



AEROSPACE FABRICATION AND MATERIALS, LLC
Spacecraft Components

Aerospace Fabrication's spacecraft components feature MLI blankets and associated passive thermal control systems, offering a range of solutions from satellite components to rocket

price on request



AEROSPACE FABRICATION AND MATERIALS, LLC
Specialty Materials

Aerospace Fabrication and Materials offers a variety of high-performance specialty materials designed for demanding aerospace and cryogenic thermal applications.

PolaWrap Length	10 feet
PolaWrap Width	86 inches
PolaLam Length	100 feet
AstraWrap Length	10 feet
AstraWrap Width	54 inches
AstraWrap HT Length	10 feet
AstraWrap HT Width	54 inches

price on request



AEROSPACE FABRICATION AND MATERIALS, LLC

Sun Shields

Aerospace Fabrication & Materials offers custom Sun Shields designed to meet individual customer needs and requirements, with experience in designing and producing shields and

Dimensions up to 3 meters

price on request

[datasheet](#)

Contact Aerospace Fabrication and Materials, LLC

Open the company profile on NewSpace Market to see full specifications and datasheets, and to send a request for quotation that reaches the manufacturer directly.

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<https://www.aerospacefab.com/>