

NANOTECHNOLOGY AT

# SPACELOFT™ 6250

# **EXTREME PROTECTION** FOR EXTREME ENVIRONMENTS

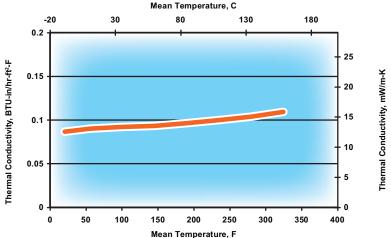
Spaceloft™ materials are flexible aerogel nanoporous insulation blankets designed to meet the demanding requirements of heavy industrial applications. The unique properties of very low thermal conductivity, good flexibility, and ease of use have made Spaceloft™ essential for those seeking the ultimate in thermal protection. Using patented nanotechnology the Spaceloft™ materials combine a silica aerogel with reinforcing fibers to deliver proven thermal performance in an easy to handle and environmentally safe product.

Spaceloft™ 6250 series may be used to insulate oil and gas flowlines, low pressure steam pipes and vessels, and hot process equipment. It provides maximum thermal protection with minimal weight. Spaceloft™ has extremely low thermal conductivity and low outgassing properties under vacuum conditions.

### **MATERIAL PROPERTIES**

Thickness	0.24 inch (6.0 mm)
Temperature Range Continuous	-150 – 390° F [-100 – 200° C]
Color	Black
Density	8.0 lb/ft³ (0.13 g/cc)
Hydrophobic	Yes
Tensile Strength	12.8 psi (88 kPa)
Specific Heat 100° F (38° C)	0.25 BTU/lb-°F (1.046 J/g-K)
Thermal Conductivity Mean Temp 100° F (38° C)	0.087 BTU-in/hr-ft²-°F (12.5 mW/m-K)
Surface coated materials are available upon request.	

-20 30 0.2





# SPACELOFT<sup>™</sup> PRODUCTS

### **Benefits**

- Light weight
- Low thermal conductivity
- Easy to apply and handle
- Flexible

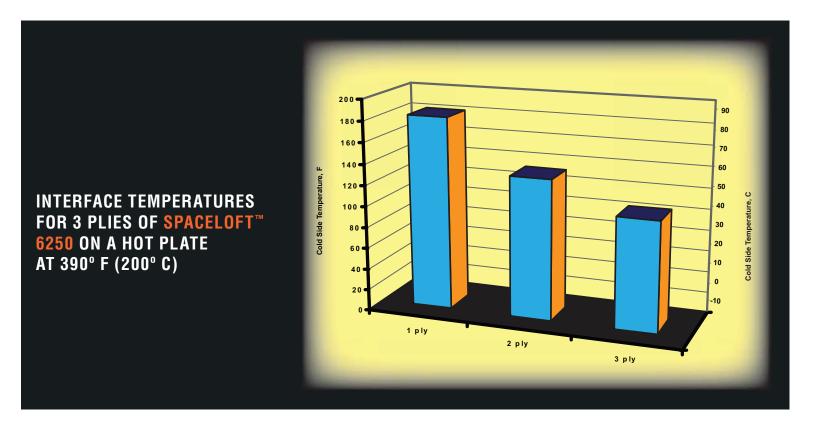
# **Applications**

- Pipeline insulation
- Fuel systems
- Refrigeration

### **Product Form**

Flexible blanket

- Nominal thickness:
- 0.24 inches (6 mm)
- Width up to
  - 59 inches (1500 mm)
- Lengths up to
  - 270 feet (82 m)



#### HANDLING CHARACTERISTICS

Spaceloft<sup>™</sup> can be cut using conventional textile cutting tools including scissors, and electric scissors. The material can be dusty and it is recommended gloves and dust mask be worn when handling material. See MSDS for complete health and safety information. For thicker solutions, layering may be used.

### **BONDING AND LIMITING DUST**

In most instances the flexible aerogel blankets can be applied without bonding. In applications where bonding is required, it is recommended that the Spaceloft™ materials be stitched to a fabric or encapsulated. Encapsulation helps to contain the material, prevent contamination of the insulation and assist in its attachment to a surface. Encapsulation can be done in numerous ways. For more information, contact Aspen Aerogels, Inc.

#### **OTHER AVAILABLE MATERIALS**

Aspen Aerogels, Inc. produces several series of flexible aerogel blanket materials for thermal insulation, energy absorption, and fire protection. Please contact Aspen Aerogels, Inc. for additional information on these other products.

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