

AEROSPACE MATERIAL SPECIFICATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc.

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AMS 3680

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Revised

INSULATION, THERMAL Silica Fiber

1. ACKNOWLEDGMENT: A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.
2. FORM: Felted pads, flat or in rolls, or as ordered.
3. APPLICATION: Primarily a component of heat insulating blankets for aircraft jet engine tailpipes and tail cones with temperatures up to 2000 F.
4. MATERIAL AND FABRICATION: This product shall be composed of fired high silica content fibers felted into a pad of substantially uniform thickness and density.
5. TECHNICAL REQUIREMENTS:
 - 5.1 General:
 - 5.1.1 Thermal Properties: When specified, the product shall have thermal conductance acceptable to the purchaser as determined by a procedure agreed upon by purchaser and vendor.
 - 5.1.2 Corrosion: The product shall not have a corrosive or deleterious effect on other materials when exposed to conditions normally encountered in service. Discoloration of metal shall not be considered objectionable.
 - 5.2 Properties: The product shall conform to the following requirements; tests shall be performed on the product supplied and in accordance with the listed methods insofar as practicable.

<u>Property</u>	<u>Value</u>	<u>Test Method</u>
5.2.1 <u>Thickness</u> : in., min	0.100	ASTM C167-44
5.2.2 <u>Density</u> : lb per cu ft	5.5 $\pm$ 1.0	ASTM C167-44 At specified thickness (0.100) Sample not less than 18 sq ft
5.2.3 <u>Shrinkage after heating</u> : per cent, max	2	Support a 12 x 1 in. specimen in a horizontal position and heat at 2050 F $\pm$ 50 for four hours. Measure length of sample at room temperature before and after heating.
5.2.4 <u>Breaking Strength as received</u> :	No rupture	Suspend a 12 x 1 in. specimen vertically with a 9 gram
5.2.5 <u>Breaking Strength following</u> <u>"Shrinkage After Heating"</u> :	No rupture	weight attached to the lower end