AEROSPACE
MATERIAL SPECIFICATIONS
SOCIETY OF AUTOMOTIVE ENGINEERS, Inc. Two Pennsylvania Plaza, New York, N. Y. 10001

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.

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