



Engineering Material Specification

Material Name

Specification Number

INSULATOR, HEAT ABSORBING - GLASS FIBER WRAP

ESA-M99G126-A

1. SCOPE

The material defined by this specification is a glass fiber wrap.

2. APPLICATION

This specification was released originally for material used as a wrap between the shell and cover in muffler applications.

3. REQUIREMENTS

3.1 COMPOSITION

3.1.1	Glass	Borosilicate ("E" glass)
3.1.2	Binder	Polyvinyl alcohol, dispersed so as to eliminate loose fibers on either surface of material.

3.2 TENSILE STRENGTH, min (ASTM D 828 with 25.4 mm sample width)

WMD	62.5 kg/m (613 N/m)
AMD	44.6 kg/m (437 N/m)

3.3 BASIS WEIGHT, min (ASTM D 646)

DE 65	95 g/m ²
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3.4 THICKNESS

Test Method: ASTM D₂ 645 with following modifications: (1) use of motorized test apparatus, (2) 645 mm² round anvil and pressure foot, pressure 3.4 kPa, (3) within any 7740 mm² sample area the average of ID measurements shall conform to the thickness specification

DE 65	0.91 - 1.65 mm
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3.5 MISCELLANEOUS PHYSICAL PROPERTIES

Fiber Diameters	5.08 - 7.02 μm
Fiber Length	6.35 - 12.7 mm
Combustible Material	2% - 5%

Date	Para. No.	Revisions	Approval
1979 01 10		Metricated & Retyped CAH2 823385	
1977 08 09		Released CAG2-761416-C4	E.P. France 11-27-76

1978 11 30
Eng Res 3948-a
June 77

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3.6 SUPPLIER'S RESPONSIBILITY

Material supplied to this specification must be equivalent to that originally approved. Changes in formulation or processing shall not be made without prior approval as described in Supplier Procedure I-A.

4. APPROVAL OF SUPPLIERS

Suppliers to this specification must be approved by the affected product engineering office. Procedure for gaining approval of a specific material to a new/existing ES-M specification is contained in Supplier Procedure I-A. Approved new suppliers will be added to the Engineering Materials Approved Source List.

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