

ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

TUBING, PAPER AND ALUMINUM - FLEXIBLE - SPIRAL WOUND

ESF-M99E16-A

1. SCOPE

The material defined by this specification is a kraft paper and aluminum composite spiral wound hose.

2. APPLICATION

This specification was released originally for material used as a hot air inlet tube in the carburetor air cleaner system.

3. REQUIREMENTS

3.1 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

Material suppliers and part producers must conform to the Company's Standard Requirements For Production Materials (WSS-M99P1111-A).

3.2 CONSTRUCTION

Shall be constructed of 3 plies, an inner and outer layer of kraft paper and a center layer of rolled aluminum. The paper shall be securely bonded to the aluminum with a polyethylene adhesive.

3.3 PAPER AND ADHESIVE (Prior to fabrication)

3.3.1 Thickness, Total (ASTM D 645) 0.0058-0.0065 in (0.147-0.165 mm)

3.3.2 Breaking strength, min (ASTM D 828)

WMD 25 lb/in (4.4 N/mm) of width
AMD 14 lb/in (2.5 N/mm) of width

3.3.3 Basis Weight, min (ASTM D 646) 65 lb/3000 ft² (106 g/m²)

3.4 ALUMINUM ALLOY (Prior to fabrication) SAE AA 1100 - H 19

Temper Extra hard
Thickness, min 0.002 in (0.05 mm)

Date	Action	Revisions
2002 09 17	Revised	Updated and renumbered
1980 09 22		Metricated & Retyped #CE3J-RD782440-E SUPP #35
1968 05 17		Released F6-3440

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3.5 ADHESION (Paper to Aluminum on finished hose)

To be specified on engineering drawing.