

ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

**FABRIC, VINYL COATED – BONDING
AND VACUUM EMBOSSING GRADE**

ESB-M2F122-A

1. SCOPE

The material defined by this specification is vinyl copolymer or vinyl chloride, coated knit fabric of good quality and uniform composition.

2. APPLICATION

This specification was released originally for material used in side trim panels manufactured by vacuum forming, vacuum embossing, and dielectric bonding type processes.

3. REQUIREMENTS

3.0 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 APPEARANCE

The color, pattern, and finish shall match the approved Body and Electrical Product Engineering master sample, or shall be as specified on the engineering drawing.

3.3 BACKING

ESB-M9H53-A

3.4 WEIGHT (FLTM BN 106-01)

Coating, min

20.4 oz/yd²
(0.692 kg/m²)

Total, range

22.5 - 27.0 oz/yd²
(0.763 - 0.915 kg/m²)

3.5 THICKNESS (ASTM D 374, Method "C")

0.033 +/- 0.004 in
(0.84 +/- 0.10 mm)

Date	Action	Revisions
2003 01 09	Revised	Para 3.0 inserted ; Para 3.1, 3.16, 3.17, 4 deleted
1979 11 05	3.14	Was "12 in (304 mm)/min" CNT-E-770250-E
1971 05 27		Released AA1-291

Printed copies are uncontrolled

3.6 TENSILE STRENGTH, min
(ASTM D 1682, Grab Method)

Warp	50 lb (222 N)
Fill	50 lb (222 N)

Note: The vinyl coating shall not fail before the specified minimum tensile values are obtained.

3.7 STRETCH AND SET
(FLTM BN 4-1)

	Stretch, min	Set, max
Warp	7.0 %	33 % of warp stretch
Fill	50 %	33 % of fill stretch

3.8 STIFFNESS
(ASTM D 747, direct reading at 60 ° angle with 0.1 in-lb (0.01 N.m) load)

	Non-Metallic	Metallic
Warp	18	25
Fill	14	20

Note: The test specimen shall be 2 x 1 in (50 x 25 mm) with 1 in (25 mm) of the 2 in (50 mm) dimension clamped in jaw, 1/2 in (13 mm) span from clamp to bending plate, fabric side up.

3.9 TRAP TEAR, min
(FLTM BN 22-1)

Warp	8 lb	(35.6 N)
Fill	8 lb	(35.6 N)

3.10 SHRINKAGE, max
(FLTM BN 105-01)

Warp	3.0 %
Fill	1.0 %

3.11 ADHESION OF COATING TO BACKING FABRIC, min
(ASTM D 413, Machine Method; the coating of the test specimen shall be separated from the backing fabric, by hand and without the use of solvents, prior to pulling. The moveable jaw of the testing machine shall move at the rate of 12 in (305 mm)/min.)

3 lb (13.3 N) per 1 in (25 mm) wide strip