

ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

PANELBOARD, PRESSED WOOD, NON-DIELECTRIC GRADE

ESB-M2E66-A

1. SCOPE

The materials defined by this specification are non-dielectric grade wood panelboards.

2. APPLICATION

This specification was released originally for materials generally used as foundations for door and quarter trim panels, sun visors, package trays and front seat backs.

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 THICKNESS

(ASTM D 645, Method "A")

As specified on
engineering drawings

Thickness variation of any one board used in heat bonding operations shall not exceed 0.25 mm or 10 %, whichever is smaller.

3.3 MOISTURE CONTENT, based on original weight (ASTM D 644, 100 x 100 mm samples)

3 - 6 %

3.4 WATER ABSORPTION, max (SAE J315, 24 h immersion)

35 %

3.5 WATER SWELL, max

18 %

Test Method: Measure the thickness at 4 points 25 mm from center along diagonal lines drawn from corner to corner before and after water absorption test (3.4).

3.6 WARP, max

(FLTM BS 002-01, 24 h immersion)

5 %

3.7 BURSTING STRENGTH, min

(ASTM D 774, 5 bursts on each side of 3 of thickness specimens, both as received after 24 h in tap water at 23 +/- 2 °C)

950 kPa/mm

Date	Action	Revisions
2002 07 25	Revised	Updated & Renumbered
1991 06 20	NB00E10043064046	Updated, added para 3.15
1963 08 07		Released

Printed copies are uncontrolled

ENGINEERING MATERIAL SPECIFICATION

ESB-M2E66-A

3.8	FLEXURAL STRENGTH, min (ASTM D 790, Method I - Procedure "A", Avg of 5)	31 MPa	
3.9	DIMENSIONAL STABILITY, max (SAE J 315)		
		Expansion, %	Contraction, %
		2.03 mm	+ 0.7
		2.54 mm	+ 0.5
		- 0.7	- 0.5

3.10	STIFFNESS, min (ASTM D 747, direct reading at 5° angle, 0.68 N.M bending moment, 51 mm span, 25 x 100 mm samples, both directions)		
		Original	Soaked*
	2.03 mm	30	15
	2.54 mm	40	20

*Immerse test specimens in tap water at 23 +/- 2 °C for 24 h. Determine stiffness immediately upon removal from water bath.

3.11 FINISH

Shall be free from fiber fuzz, loose fiber, or any imperfection that would affect the finish appearance.

3.12 BONDING

3.12.1 Bond Strength, min
(FLTM BN 113-01)

Original	4.45 N
Aged	3.34 N
Wet	3.34 N

3.12.2 Resistance to Elevated Temperatures
(FLTM BN 113-02)

No evidence of loosening or separation of bonds, and no objectionable loss in loft.

3.13 FLAMMABILITY
(ISO 3795/SAE J369)

Burn Rate, max	100 mm/minute
----------------	---------------