

## ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

**FIBERBOARD (PANEL), PRESSED WOOD - SEALED AND PAINTED**

**ESB-M3E77-A**

Ñ **ESB-M3E77-B**

### 1. SCOPE

The material defined by these specifications is a sealed and painted ESB-M2E66 type pressed wood panelboard of good quality and uniform composition.

### 2. APPLICATION

These specifications were released originally for material used for applications requiring superior dimensional stability, moderate formability and rigidity.

### 3. REQUIREMENTS

In addition to the requirements listed herein, the finished assembly shall conform to ESB-M15P6-A.

#### 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 APPEARANCE (FLTM BI 109-01)

The color, pattern, and finish shall match the approved Design Center master sample or shall be as specified on the engineering drawing.

#### 3.3 CONSTRUCTION (SAE J 947)

The board shall be a single ply fiberboard constructed of a homogeneous mixture of wood fibers bonded under heat and pressure with natural and synthetic resins. The fiberboard shall be completely sealed on surface and edges with a moisture barrier coating of approximately 34 g/m<sup>2</sup>.

| Date       | Action  | Revisions                      |
|------------|---------|--------------------------------|
| 2002 09 18 | Revised | Updated and renumbered         |
| 1983 03 14 | 3.10    | Revised CAM1- RD588050-21      |
| 1969 10 27 |         | Released ESB-M3E77-A, AW1-1095 |

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### 3.4 DIMENSIONS (SAE J 315)

Thickness 2.41 - 2.79 mm

This thickness will be maintained in all relatively flat areas. The thickness of formed areas may vary outside these limits. All other dimensions will be as specified on the drawing.

3.5 FLEXURAL STRENGTH, min 31 MPa  
(ASTM D 790, Method I - Procedure "A",  
Avg. of 5)

3.6 BURSTING STRENGTH, min 876 N/mm of thickness  
(SAE J 315)

3.7 STIFFNESS, min  
(Tinius Olsen stiffness tester 5° angle, 0.68 N.m bending moment,  
51 mm span, 25 x 100 mm samples, both directions, direct load reading)

Dry 40  
Wet\* 20

\*Immerse test specimen in water for 24 h. Determine stiffness immediately upon removal from water.

|                                                                                 | <u>Expansion</u> | <u>Contraction</u> |
|---------------------------------------------------------------------------------|------------------|--------------------|
| 3.8 DIMENSIONAL STABILITY, %, max<br>(SAE J 315, Method "B,"<br>24 h immersion) | + 0.2            | - 0.2              |

3.9 MOISTURE CONTENT 2 – 5 %  
(SAE J 315, based on original  
weight)

3.10 WATER ABSORPTION, max 8%  
(SAE J 315, 24 h immersion\*)

\*Seal the edges of the test sample with paraffin wax or production moisture barrier coating (3.2 mm from edge maximum) prior to conducting test.