



Prime-Line, Inc.

Doors, Mouldings, & Millwork



Until late 2005, MDF products were made out of a board that had a 51# density which made machining and nailing the board very difficult. Over time, MDF has made significant improvements and now has a 39# density, thus the birth of Prime-Lite, lite density fiberboard (LDF).

Prime-Lite has unparalleled strength, durability, fastening, and stability. The biggest attribute of Prime-Lite materials, is the screw holding power. Prime-Lite's screw holding power is superior to other LDF products because there are more wood fibers left in the Prime-Lite product. The competition achieves its lite density by taking out wood fiber and replacing it with resin, creating small gaps of air that greatly diminishes screw and nail holding ability. In fact, most of the time, the contractor or home owner who does not use Prime-Lite materials, must go back and re-fasten the moulding after a year or two because the material moves and loosens itself from the nail. Not to mention the fact that the air gaps make it very difficult to paint and finish without a lot of sanding. Both issues do not apply to Prime-Lite products.

Finally, according to the American National Standard for MDF, ANSI A208.2, the competition specifications do not meet any of the ANSI grade criteria (please see ANSI Standard for MDF), whereas the Prime-Lite specifications meet grade 120.



PRIME-LITE PRODUCTS



OTHER ADVANTAGES TO USING PRIME-LITE PRODUCTS

- ANSI accreditation
- Meets CARB (California Air Resources Board) Requirements
- Environmentally Preferable Product (EPP) Certification
- **Environmentally Friendly:** 100% recycled or recovered wood fiber.
- **Durable:** Prime-Lite wood products provide solid, uniform strength that is highly resistant to warping, cracking and splitting.
- **Superior Quality:** The smooth surface of the Prime-Lite material is critical for today's decorative surfaces.
- **Versatility:** Prime-Lite is engineered to meet specific customer performance requirements.
- **Workability:** Can be shaped easily and moulded into almost any design.
- **Value:** Composite wood products typically cost much less than their solid wood counterparts. That means you get a product that provides superior performance at an affordable price!

ANSI A208.2-2002 MEDIUM DENSITY FIBERBOARD (MDF) FOR INTERIOR APPLICATIONS



3.4 Formaldehyde Formaldehyde emissions from MDF bonded with a resin system containing formaldehyde resin system, shall be tested in accordance with ASTM E 1333-96. The loading ratio for MDF shall be $0.260 \text{ m}^2/\text{m}^3$ ($0.08 \text{ ft}^2/\text{ft}^3$). Emissions shall not exceed the maximum limit of 0.30 ppm as specified in Tables 1 or 2.

4. Identification

4.1 Grade Designation The MDF grades in this standard are identified by a three digit number. Table 1 grades are designated by 100 series numbers and Table 2 grades are designated by 200 series numbers. The grade number designates the property value level first based on MOR and secondarily on IB.

4.2 Moisture Resistant Designation MDF with moisture resistant characteristics shall be identified by using a grade designation followed by a hyphen and a moisture resistance designation in Subsection 2.6. Using grade 140 for example: 140-MR10; 140-MR30; 140-MR50.

4.3 Product Identification All MDF which is represented as conforming to this American National Standard shall be identified with at least the following information.

- ANSI Standard A208.2-2002
- Thickness
- Grade
- Other applicable designations

MR10 for products meeting the requirements of Subsection 3.3.4

MR30 for products meeting the requirements of Subsection 3.

MR50 for products meeting both requirements of Subsection 3.3.4 and Subsection 3.3.5

4.4 Identification Methods The information required by Subsection 4.3 shall be provided either by:

- a shipping or package label with the conforming product(s), or
- an invoice or other commercial document, or
- stamping or labeling each conforming panel.

ANSI A208.2-2002
PRIME-LITE, LITE DENSITY FIBERBOARD (LDF)
FOR INTERIOR APPLICATIONS

Table 1

Physical and Mechanical Property Requirements for MDF When Determined in Accordance with ASTM D 1037-96a Part A

Grades	Physical and Mechanical Properties											
	Modulus of Rupture (MOR)		Modulus of Elasticity (MOE)		Internal Bond (IB)		Screwholding				Thickness Swell (TS)	
											Panel Thickness	
	N/mm ²	(psi)	N/mm ²	(psi)	N/mm ²	(psi)	Face N	pounds	Edge N	pounds	≤15mm mm (inch)	>15mm percent
110	14.0	2030	1400	203100	0.30	44	780	175	670	151	1.5 (0.059)	10%
120	14.0	2030	1400	203100	0.50	73	875	197	775	174	1.5 (0.059)	10%
130	24.0	3481	2400	348100	0.60	87	1100	247	875	197	1.5 (0.059)	10%
140	24.0	3481	2400	348100	0.75	109	1325	298	1000	225	1.5 (0.059)	10%
150	31.0	4496	3100	449600	0.90	131	1400	315	1200	270	1.5 (0.059)	10%
160	31.0	4496	3100	449600	1.05	152	1555	350	1335	300	1.5 (0.059)	10%

Property Requirements
Common to all MDF

- 1) Grades shall also meet the requirements listed in Section 3 of this Standard. Panels designated as MR10 shall have a TS ≤ 50 % of the TS value specified in the Table. Panels designated as MR30 shall retain at least 50% of the MOR value after tested in accordance with ASTM D 1037-96a Accelerated Aging Test. \ Panels designated at MR50 shall have a TS ≤ 50% of the TS value specified in the Table and shall retain at least 50% of the MOR value after tested in accordance with ASTM D1037-96a Accelerated Aging Test.
- 2) MDF bonded with a resin system containing formaldehyde, other than an exclusively phenol-formaldehyde resin system, is subject to the formaldehyde emission limit.

Properties	Tolerance Limits
Panel Length or Width ≥ 0.61.m (2 feet)	± 2.0 mm (0.080 inch)
Panel Average form Specified Thickness	± 0.125 mm (0.005 inch)
Variance from Panel Average Thickness	± 0.125 mm (0.005 inch)
Linear Expansion (LE)	± 0.3 percent
Formaldehyde Emissions	± 0.30 ppm

- 3) Property values represent a five panel average.
- 4) Panels of thickness less than 9.5 mm (3/8 inch) shall not be tested for face screw-holding. Panels of thickness less than 16 mm (5/8 inch) shall not be tested for edge screw-holding.
- 5) Thickness tolerance values only apply to sanded panels.
- 6) LE shall be measure between 50% and 80% RH in accordance with ASTM D 1037-96a.
- 7) Tested in accordance with ASTM E 1333-96 at 0.26 m²/m³ (0.08 ft²/ft³) loading ratio.