

Fire Rated Particle Board

Duraflake FR Particleboard Specifications (Albany, OR)

ARCHITECTURAL PROJECTS

- Piper Jaffrey, San Francisco, CA
- Carnegie Hall, New York, NY
- John F Kennedy International Airport, New York, NY
- LaGuardia Airport, New York, NY
- Washington Convention Center, Washington, DC
- Asian Art Museum, San Francisco, CA
- University of California at San Francisco, Mission Bay, San Francisco, CA
- Lemay Campus, Poudre Valley Hospital, Ft. Collins, CO
- Centers for Disease Control, Building 18, Atlanta, GA

TECHNICAL DATA

Applicable Standard Tests

- ASTM E 84 Standard Test for Surface Burning Characteristics of Building Materials
- ASTM C 236 Guarded Hot Box Test
- UL 723 Test for Surface Burning Characteristics of Building Materials

Building Codes

- BOCA - Building Officials and Code Administrators International
- ICBO - International Conference of Building Officials
- SBCCI - Southern Building Code Congress International

Agency Approvals

- California State Fire Marshall 2660-1627:100
- City of New York MEA 177-78-M
- City of Los Angeles R.R. 248811
- City and County of San Francisco 258 W34-1
- City and County of Denver M-88-46

Physical Properties

Grade	Duraflake FR Particleboard	Duraflake FR Particleboard
Thickness (in)*	3/8, 3/4	1 1/4, 1 1/2
Specification	Class I Flame Spread	
Density (lb/cu ft)	45	44
MOR (psi)	1,600	1,600
MOE (psi)	300,000	250,000
Internal Bond (psi)	80	60
Face Screw Hold (lb)	250	250
Edge Screw Hold (lb)	225	175
Linear Expansion (%)	0.40	0.35
Thickness Tolerance (in)	+/- .005	+/- .005
Length and Width (in)	+/- 1/16	+/- 1/16
Squareness (in)	+/- 1/16	+/- 1/16

* Metric thickness available.

The above properties are based on averages of normal production. Testing for conformance to the above specifications must be done in accordance with procedures in the American National Standard for Particleboard (ANSI A208.1-1999).

Underwriter's Laboratories, Inc. Classified Wood Particleboard

Surface Burning Characteristics: UL 723
(Based on 100 for Oriented Strand Board)

Flame Spread

20

Smoke Developed

25

See UL Classified Building Materials Index. Listed under Wood Particleboard.

Thermal Conductivity (k) and Thermal Resistance (1/k = R)*

Thickness (in)	3/8	1/2	3/4	1
k=	0.54	0.62	0.55	0.69
R=	1.85	1.61	1.82	1.45

* R and k values obtained using ASTM C 236 "Thermal conductance and transmittance of built-up wall sections by means of the Guarded Hot Box" in tests conducted by Northwest Testing Laboratories."

Warning: Particleboard is manufactured with urea-formaldehyde resin and may release formaldehyde in low concentrations. Formaldehyde can cause temporary eye and respiratory irritation and may aggravate respiratory conditions or allergies. Proper ventilation will reduce the risk of such problems.

As with any building project, always wear proper eye, ear, and breathing protection and follow local building codes.

A Material Data Safety Sheet is available upon request.

STORAGE AND HANDLING

Duraflake® FR particleboard should never be stored or used outdoors. The indoor storage area should be clean, dry, well-ventilated, and free of dust, dirt or particles that could contaminate the particleboard. Store flat on stickers on a level, hard, dry surface. Constant relative humidity and temperature should be maintained. Before use, allow to stabilize to the same conditions as are expected after the panel is installed. Condition 48 to 72 hours prior to lamination. For more information, see *Composite Panels Association Technical Bulletin: Storage and Handling of Particleboard and MDF*.

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