



# DURAFLAKE® FR | fire-rated particleboard

passion  
for panels®

## THE PARTICLEBOARD SOLUTION OF CHOICE FOR FIRE SAFETY NEEDS

Duraflake® FR from Flakeboard is the panel of choice when building code and public safety specifications demand fire safety compliance. Duraflake® FR particleboard is a UL® approved, Class A/Class 1-rated fire retardant panel that's ideal for interior, non-structural use in restaurants, schools, hospitals, hotels, malls, airports, offices and public buildings.

Duraflake® FR offers:

- Superior strength and dimensional stability
- Low linear expansion and thickness swell
- Smooth surface properties for laminating and finishing
- Easy machining and low tool wear
- Wide range of products and sizes

### Duraflake® FR Particleboard Specification (Albany, OR)

Grade	Duraflake® FR Particleboard	
Thickness (in)*	$\frac{3}{8}$ - $\frac{3}{4}$	$\frac{13}{16}$ - $1\frac{1}{2}$
Specification	Class A/Class 1 Flame Spread	Class A/Class 1 Flame Spread
Density (pcf)**	47	46.5
MOR (psi)	1,600	1,600
MOE (psi)	325,000	300,000
Internal Bond (psi)	75	60
Face Screw Hold (lb)	240	240
Edge Screw Hold (lb)	190	175
Linear Expansion (%)	0.40	0.35
Thickness Tolerance (in)	+/- 0.005	+/- 0.005
Length and Width (in)	+/- $\frac{1}{16}$	+/- $\frac{1}{16}$
Squareness (in)	+/- $\frac{1}{8}$	+/- $\frac{1}{8}$

\* Metric thickness available. \*\* Density Range +/-2%  
The above physical properties are based on targeted averages of normal production.

- Look for FSC® certified products
- Product suitability for a particular application is the responsibility of the fabricator or end user
- Complies with ECC 4-11, ANSI A208.1-2009, HUD 24 CFR and CARB ATCM 93120 Formaldehyde Emission Limits
- Material Safety Data Sheets are available upon request
- All panels are approved for use in interior, non-structural applications
- Contains 100% Recycled/Recovered Wood Content

#### 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
- CAN/ULC - S102 Test for Surface Burning Characteristics of Building Materials

#### BUILDING CODES

- ICC - International Code Council - 2009 International Fire Code
- NFPA - National Fire Protection Association - NFPA 101 Life Safety Code - NFPA 5000 Building Construction Safety Code

#### AGENCY APPROVALS

California State Fire Marshall 2660-1627:100, City of New York MEA 177-78-M, City of Los Angeles RR 24811

Underwriter's Laboratories, Inc. Classified Wood Particleboard Surface Burning Characteristics of Building Materials, UL 723 & CAN/ULC - S102 (Based on 100 for Untreated Red Oak)

Flame Spread 20 USA 25 Canada  
Smoke Developed 25 USA 25 Canada

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

Thickness (in)	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{3}{4}$ "	1"
k	0.54	0.62	0.55	0.69
R	1.85	1.16	1.82	1.45

#### USAGE NOTES

Some laminates applied to Duraflake® FR particleboard may change the flame spread rating. Standard available woodworking glues have been successfully used in lamination. However, some adhesives may have compatibility problems with the chemical system used to manufacture Duraflake® FR particleboard. Any adhesive should be tested for compatibility with the chemical system in Duraflake® FR particleboard prior to full-scale gluing. Questions should be directed to the glue supplier. When using Duraflake® FR particleboard in wall systems, an integral vapor barrier must be a properly installed component of the wall in any of the following conditions: the wall has an exterior side and the wall separates spaces conditioned unequally. Joints between panels to be designed to accommodate movement of up to .40 percent. Splined or articulated joints for reveals per AWI Section 500, 500A-G-4 "Joints and Transitions" or similar is suggested.

Wood veneers and other laminates should be tested for compatibility with Duraflake® FR particleboard prior to use. Some wood veneers, laminates, and other types of products may have reactions to surface coatings and finishes, glues, pressing temperatures, moisture, contaminants, the chemical systems used to manufacture FR particleboard products, the failure to use UV inhibitors, or due to other causes. Reactions may include discoloration to veneer or laminate. Flakeboard is not responsible for discoloration or for claims associated with discoloration. Please contact your Sales Representative for more information.

#### 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.

#### CALIFORNIA PROPOSITION 65 REQUIREMENT

Warning: Drilling, sawing, sanding or machining wood products generates wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection.



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