



# TECHNICAL DATA SHEET

Roseburg  
**UltraBlend**  
 Particleboard  
 Dillard, OR

## Benefits

UltraBlend® panels are a premium-quality, mat-formed, multi-layer, wood particle panel, made predominantly of precision-refined wood particles bonded with thermosetting resins. Roseburg offers its UltraBlend panels with a high-quality, smooth surface, tight, machinable edges and excellent dimensional stability. UltraBlend engineered panels offer controlled performance and precise physical properties for commercial and industrial applications, such as cabinets, fixtures, furniture components and countertops. Featuring a highly refined surface, and tight, uniform core, UltraBlend particleboard panels are designed for the demanding laminating and edge machining applications of today's precision woodworking industry.

## Properties

Listed below are physical and mechanical properties for Roseburg specified grades. Mechanical properties are results of tests conducted in accordance with ASTM D 1037-06a, "Standard Test Methods for Evaluating the Properties of Wood-Based Fiber and Particle Panel Materials."

	Density Range (pcf)	MOR (psi)	MOE (psi)	Internal Bond (psi)	Screw-holding	
					Face (lbs)	Edge (lbs)
UltraBlend Premium	47-49	2,393	450,000	80	270	225
UltraBlend Plus	46-48	2,100	400,000	75	250	200
UltraBlend	45-47	1,800	350,000	65	225	180
UltraBlend Lite	40-42	1,350	300,000	60	NA	NA

Values represent target averages for typical 3/4" thickness production.

Customer or ANSI Grade specified products are available and subject to minimum order quantities.

## Dimensional Tolerances

Length and Width	± 0.080"
Thickness: Panel average from specified Variance from panel average	± 0.008" ± 0.004"
Squareness	± 0.036" per foot of panel width

## Other Data

Linear Expansion 50% to 80% range	0.40% (max)
Flame Spread Rating	Class III or C

## Certifications

### FSC® Certification (SCS-COC-000300)



Dillard Composites is certified to provide FSC Mix Credit Certified product. FSC product must be specified at time of order placement and is subject to credit availability.

### CARB Air Toxic Control Measure

Third party certified (California ARB approved TPC-1) to comply with CCR 93120.2 (CARB Composite Wood ATCM). Conforms to formaldehyde emission requirements for particleboard in ANSI A208.1-2009 as well.

### ECC - Eco-Certified Composite Panel



Third party certified to meet requirements of the Eco-Certified Composite (ECC) Sustainability Standard CPA 4-11. Standard requires compliance to specifically defined environmental criteria in the fiber sourcing and manufacturing process for composite panels.

### Recycled/recovered fiber content

Dillard Composites is third party certified to source 100% recycled and/or recovered wood fiber in accordance with ISO 14021 requirements.

### Carbon footprint

Roseburg mills producing UltraBlend panels have completed (third party certified) cradle-to-gate analysis showing the products carbon storage capacity offsets its carbon footprint as determined in kg-CO2 equivalents of greenhouse gas (GHG) emissions.

### Bio-based renewable materials

Roseburg UltraBlend Particleboard and Duramine laminated panels are listed in the USDA's Bio-Preferred catalog and have Federal Procurement Preference status.

UltraBlend particleboard is intended for interior, non-structural applications only.



## MATERIAL SAFETY DATA SHEET

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**PRODUCT** MEDIUM DENSITY FIBREBOARD  
Grade with Formaldehyde Emission (E1),  
Grade with Formaldehyde (E2),  
Grade with Formaldehyde Emission (E0)  
Grade with Formaldehyde Emission (CARB Phase two)

### 1 Identity and Use

Registered Trade names -  
Dangerous Goods Class None allocated  
Hazchem Code None allocated  
Poisons Schedule Not scheduled  
Use Construction of furniture and cabinets. General-purpose building boards.

### 2 Ingredients

Chemical Entity	Cas No.	Proportion
Rubberwood	None	> 80%
Urea formaldehyde resin	9011-05-6	8 - 12%
Wax		< 1%

Note *The above ingredients are bound together under heat and pressure. The process "cures" the resin, but small amounts of formaldehyde may be released from the finished products.*

### 3 Physical Description/Properties

Appearance The products are manufactured as pressed panels.. They are made from wood fibers that are bonded together with resin.

Odour Newly manufactured MDF product and freshly cut surfaces of these products may have an odour due to the resin.

Boiling point Not applicable.

Specific gravity 0.65 - 0.85

Vapour pressure Not applicable

Flash point Not applicable

Solubility in water Not soluble

Flammability Not available



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limits

Auto-Ignition Temperature Does not auto-ignite

### 4 Health Hazard Information

#### Health Effects

When first manufactured, the unsealed surfaces of these boards may release small quantities of formaldehyde gas. The concentrations will be highest when the boards are stored in confined, poorly ventilated spaces. When the boards are sealed with paint, varnish, or other surface decorative finishes, the potential for the release of formaldehyde will be greatly reduced. When the boards are cut, drilled or sanded etc. dust will be given off.

The known health effects of the constituents of the MDF products are as follows

Wood dust	Dust and splinters may cause irritation of the nose and throat, eyes and skin. Inhalation of wood dust may increase the risk of nasal and paranasal sinus cancers.
Cured resin	The cured resin is inert and not likely to contribute to health effects.
Wax	The wax vapour may be irritating to the nose and throat, eyes and skin, if the board is heated to 120 °C or more.
Formaldehyde	Formaldehyde gas and dilute solutions or formaldehyde in water are irritating to the nose and throat, eyes and skin. The solution are also sensitizers and contact dermatitis has been reported.

Exposures to the dust, gas and vapour from the panels may result in the following health effects:

Swallowed	Unlikely to occur, but swallowing the dust may result in abdominal and redness.
Eyes	The dust, gas and vapour may irritate the skin, resulting in itching and occasionally a red rash. Allergic contact dermatitis may occur.
Inhaled	The dust, gas and vapour may irritate the nose, throat and lungs, especially in people with upper respiratory tract or chest complaints. Asthma may occur.
Skin	The dust, gas and vapour may irritate the skin, resulting in itching and occasionally a red rash. Allergic dermatitis may occur
Chronic	Repeated exposures over many years to uncontrolled dust, gas and vapour from these boards may increase the risk of allergic dermatitis, asthma, or chronic nose or throat irritation in some people. The risk of nasal or paranasal sinus cancers may also be increased. But if the work practices that noted in this MSDS are followed, no chronic health effects are anticipated.

### 5 First Aid Measures

Swallowed	Drink a glass of water.
Eye	Flush with flowing water for at least 15 minutes, and if symptoms persist seek immediate medical attention.
Skin	Wash with mild soap and running water.
Advice to doctor	Treat symptomatically.



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### 6 Protective measures.

Engineering controls	All work with these MDF products should be carried out in such a way as to minimize the generation of dust, gas and vapours. Under factory conditions, sawing, drilling, sanding, etc, should be done with equipment fitted with exhaust devices capable of removing dust, gas and vapour at source. Hand powered tools should only be used in well ventilated. Work areas should be cleaned at least daily, and dust removed by vacuum cleaning or wet sweeping method.
Skin Protection	Wear loose, comfortable clothing. Long-sleeved shirts and trousers are recommended if skin irritation occurs. After handling panels, wash with mild soap and water. Do not scratch or rub the skin if it becomes irritated. Wash work clothes regularly and separates from other clothes. Comfortable work gloves should be worn.
Respiratory Protection	A replaceable filter or disposal half-face piece respirator should be worn when sawing, drilling or sanding etc.
Eye Protection	Safety glasses of non-fogging goggles should be worn sawing, drilling or sanding etc.
Flammability	These MDF products are flammable but difficult to light. Avoid a build-up of dust and keep all storage and work areas well ventilated. Avoid sources of radiant heat and flame; and avoid sparks and sources of ignition in all electrical equipment, including dust extraction equipment. People must not smoke in storage or work areas.

### 7 Safe Handling Information

Storage and Transport	The MDF products should be stored in well-ventilated areas away from sources of heat, flame or sparks. No special transport requirements are considered necessary.
Spills and Disposal	Off-cuts and general waste material should be placed in containers and disposed off at approved landfill sites, or burnt in an approved furnace or incinerator, in accordance with disposal authority guidelines. Dust should be cleaned up by vacuuming or wet sweeping.
Fire/Explosion Hazard	Burning or smoldering MDF or dust can generate carbon dioxide and other pyrolysis products typical of burning organic material. Dry dust in high concentrations can be explosive. Use water or dry foam fire extinguishers.

*The information contained herein is correct to the best of our knowledge. However, Dongwha Malaysia Holdings Sdn Bhd makes no warranty, expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. We suggest that you evaluate the product as well as the information, formulae and recommendations to determine fitness for the purpose for which its use proposed. No protection from any law or patent is to be inferred.*