

Product Name:

Alpine MDF Industries - E0 Alpine MDF – [ECG]

Overview:

A low VOC Australian-made MDF board manufactured from FSC fibre. Available in 3, 6, 9, 12, 16, 18, 25, 32mm thicknesses, through wholesalers only for commercial or residential use.

Product Description:

Alpine E0 MDF is manufactured using a modified glue and formaldehyde 'scavengers' to reduce formaldehyde emissions to less than 0.5 mg/L.

Alpine MDF Industries source 60% of fibre from FSC certified plantations (see). All wood by-products of the manufacture of Alpine MDF are combusted as bio-fuel for the generation of process energy requirements.

Both MR and Non MR (moisture resistant) grades are available. Boards are now made to Australian sizes and supplied to wholesalers as either 'raw board' or with white melamine finish. White Board is available in E0 and E0 MR grade in 16mm and 18mm, 2400 x 1200s sizes only.

Applications include interior panelling, shopfitting and skirting architrave door skins.

Refer to ammendment no. 1 to AS/NZS1859.2:2004 for most recent (Feb 2006) AS/NZS standards pertaining to reconstituted wood-based panels. (This document is available for download below)

Attached Files:

[Product Information](#)

Options:

Alpine MDF is available as:

- LFE (E1- see cautionary note regarding LFE grade MDF under "Issues of Concern"), MR (moisture resistant)and
- E0 and MR E0.

Thicknesses available are 3, 6, 9, 12, 16, 18, 25, 32mm (subject to product and type availability).

Warranty:

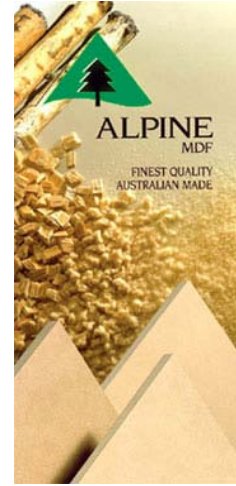
See manufacturer.

Expected Life:

For commercial and residential applications: 10 years (usual limits to service life include fashion and wear and tear).

Constituents:

Component	Percentage by Weight of Product
Wood Fibre (plantation grown radiata pine)	86%
Urea Formaldehyde Resin	13%
Parrafin Wax	1%



Purchase Options:

Through wholesalers only.

Discussion:



Raw Materials Issues:

Product manufactured from wood particles/ fibres which are bonded together with resin.

Wood fibre: manufactured using 100% FSC certified plantation grown radiata pine using low grade pulpwood.

Formaldehyde based resin: independently verified that Alpine E0 MDF formaldehyde emissions do not exceed 0.5 Mg/L.

Preparation: Can be easily worked using conventional woodworking machines and hand tools- tungsten carbide cutters and saws are recommended. Surfaces can be painted to achieve a high quality finish and provides a uniform substrate for overlaying.

Durability: Manufacturer claims product is durable for 15 years when used for non-bracing and non-structural interior applications in houses and used for the constructio n of fixtures such as benches or basin supports where coated. Manufacturer also claims product is durable for 50 years when used in dry interior environments.

Specifications for Alpine Premium E0 MDF:

SPECIFICATIONS	UNITS	< THICKNESS RANGE & TYPICAL VALUES >			
		<8mm	8 - 11mm	12 - 22mm	23- 32mm
Thickness Tolerance	mm	+/-0.2	+/-0.2	+/-0.2	+/-0.2
Density	Kg/m ³	790	750	740	710
Internal Bond	N/mm ²	0.800	0.800	0.800	0.700
Modulus of Rupture	N/mm ²	40	40	35	34
Modulus of Elasticity	N/mm ²	3200	3000	3000	3000
Screw Holding, Face	N	N.A.	N.A	≥500	≥500
Screw Holding, Edge	N	N.A	N.A	≥500	≥500
Thickness Swell (24hr)	%	N.A	<10	<8	<7

Repairability and maintenance: Able to be repaired and maintained with sanding and re-surfacing. Should not be used in exterior applications nor exposed to water or high humidity situations.

Reusability and Recyclability: Has potential reuse as bio-fuel. Embodied Energy as bio-fuel: 20GJ/Tonne.

Product Takeback Scheme Offered?: No.

Issues of Concern?

Formaldehyde (classified as a VOC) content as follows:

E0 MDF: The product emits very low levels of formaldehyde (under 0.5 mg/L), this limits waste disposal options. Formaldehyde may be released under some conditions, particularly when the boards are heated and laminated, or cut by laser cutting machines. However, in well ventilated storage areas and workplaces, the concentration of formaldehyde is unlikely to exceed the World Health Organisation Standard of 0.1ppm for the general environment.

E1 (LFE) MDF: E1 has a formaldehyde emission rating of between 0.5 and 1Mg/L. This is in accordance with Australian Standard AS 1859, but not 'low VOC' according to Green Star 'Office Interiors' Rating Tool criteria. More stringent safety precautions should be taken when using this product.

Not all fibre is from certified FSC sources.

Assessment Comparison:

Standard E1 particleboard and MDF

Wood products where wood fibre is not from equivalently certified forests.

Indicative cost:

5%-10% more than standard E1 MDF.

Australian Manufacture/Fabrication:

Yes.

State Availability:

All states.

Australian and other Standards:

ISO14001

AS/NZS 1859.2 2004

AS 4801-2000 OH&S Management System.

JIS A5905 (Japanese Industrial Standards).

Green Stars Assessment:

Green Star Office Interiors Compatibility

IEQ-11	Because of the E0 formaldehyde emission levels, use as a component in work stations, walls, partitions, tables and storage units would assist in meeting IEQ-11 points.
IEQ-12	EO emission levels ensure 2 points awarded where all composite wood products employ Alpine EO.
Mat-1,3,5,6	Because eco-preferred content is over 20%, maximum available points are ensured under the Eco Preferred content sub credit.

Green Star Office Design Compatibility:

IEQ-14	EO emission levels ensure 2 points awarded where all composite wood products employ Alpine EO.
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Assessment Criteria Satisfied

ENERGY/GREENHOUSE

- Low energy in production
- Potential less GHG/ODP down stream
 - Embodied Energy as bio-fuel: 20GJ/Tonne
 - Wood based products effectively sequester carbon and reduce Greenhouse gas production.

HABITAT & LAND

- Reduced terrestrial impact
 - Reduced impact on habitat degradation from 60% of FSC certified fibre as compared to wood products from non-certified forests.

RESOURCE DEPLETION & EFFICIENCY

- Reuse potential.
 - Reuse of waste as biofuel (see above embodied energy).

HUMAN HEALTH

- Low/Reduced Offgassing
- Reduced toxics or carcinogens
 - E0 MDF has very low formaldehyde emissions (less than 0.5Mg/L).

REDUCES POLLUTION

- Reduced Life Cycle Carcinogen
 - E0 MDF has very low formaldehyde emissions (less than 0.5Mg/L).

OTHER VITAL SIGNS

- Australian Standard (ISO14001- AS/NZS 1859.2 2004, AS 4801-2000)
- MSDS
- Independent Verification (sighted by Ecospecifier)
- Doc Manuf Claim
- Environmental Info about product
- Environmental Policy
- Expert Ecospecifier Assessment.

GREENSTAR OFFICE INTERIORS CRITERIA SATISFIED

Green Star Office Interiors:

- IEQ-12,
- Contributes to IEQ-11 and MATS-1,3,5,6,

Green Star Office Design:

- IEQ-14

