

External Timber Door Protection Requirements

When designing your new home or development, strong consideration must be given to the weather exposure for the front elevation if you are to select the right doors, frames and hardware to ensure a quality and lasting statement.

Careful consideration is required when selecting doors to be installed to the external perimeter of a house / building. It is also important the frame, door and hardware selected are "fit for purpose" (E.G. Suitable for the application and level of weather exposure). Building design must also be taken into account limiting door exposure. Some basic rules will ensure the most appropriate door system for each level of weather exposure.

All major Australian timber door manufacturers warranty's state;

Entrance / Exterior doors **MUST BE LOCATED** in weather protected areas. Doors that are installed in an exposed situation, including opening-out doors, will **NOT** be warranted unless there is adequate overhead protection. (Refer to below Timber Door Direction and Climate Chart.)

Door Positioning.

- The positioning and level of weather exposure a door will receive will determine the most appropriate door and frame that should be used. Doors on the coast facing west will be far more exposed to the weather than a door inland and facing east.
- Pivot and Bi-fold doors are not recommended for highly exposed areas with limited overhead protection as they can be difficult to seal against wind driven rain in exposed or coastal areas.
- M&B Elements (Fibreglass) doors are designed specifically for exposed areas and WA conditions and are more durable than timber doors.
- A quality frame must always be used along with good quality installation, hardware, seals and finishing.
- Doors exposed to direct sunlight **MUST** be finished in light reflective colours to reduce heat absorption, which could cause warping.

Adequate overhead protection is most important for External Timber doors.

The table below indicates the most appropriate size for the overhead protection as illustrated.

Depending on the height (H) from the base of the door to the bottom of the overhead protection the formula that correlates to the climate and the direction of the door will provide you with an indication of how deep (D) the overhead protection should extend.



Climate	Timber door direction			
	North	South	East	West
Coastal	$D = H$	$D = H$	$D = \frac{1}{2}H$	$D = 1\frac{1}{2}H$
Other	$D = H$	$D = H$	$D = \frac{1}{2}H$	$D = H$

Please note 'Coastal' denotes 500m - 2 km from the coast.

Closer than 500m from the coast is considered "extreme coastal exposure" ... please seek our professional advice.

Note: M&B Elements (fibreglass) doors with 10 year warranty can be used where overhead protection as detailed on the table above may not be possible.



M&B recommend considering the entire Door System, Frame, Sill, Door Seal, Door and Hardware, along with door exposure to ensure a great entry that will be hassle free and look great for years.

Frames and Sills

- A good quality door frame with appropriate seals and sill will ensure the best possible starting point. Quality timber that has a proven record in WA is recommended. Jarrah, Cedar, Kapur, Dark Red Meranti and Merbau are excellent species for WA conditions and are proven to provide long term durability. M&B recommend Jarrah, Merbau and Aluminium sills only. Open-in frames now have excellent "Self Draining" aluminium sill options. (Enviro Frames & Evo Frames)
- Open-out frames can be an advantage in windy areas. Wind will force doors to seal onto the frame. M&B Evo frame has an open out Aluminium sill.

Door Seals

- Quality weather seals must be used around the entire frame. M&B recommends Aquamac 21 seal. If using a timber sill then a suitable door seal is recommended at the bottom of the door. (Note: Aluminium sills do not require having a seal fitted to the bottom of the door.)

Elements Meeting Stile (EMS)

- EMS are recommended on all pairs of entrance doors. (Rebating is not recommended as it compromises the structural integrity of the door and increases the chance of bow/twist.) EMS provides a very good weather / draft seal (stops wind whistling).
- EMS are available in Timber or Aluminium and are designed to be unobtrusive, easy to install and a great weather seal.
- EMS also avoids having to use and fit a rebate kit resulting in further cost savings.

Trimming and Hanging

- Ensure frames are the correct size so that trimming of doors is minimal. Never trim beyond manufacturers recommendations. Always trim each side equally.
- All Entrance doors must be hung on three quality hinges. M&B recommends 100x75mm ball bearing hinges.
- Hinges for doors wider than 920mm and with a height greater than 2340mm must be hung on 4 hinges and configured as per manufacturers specifications.

Finishing of the Door

- As per Australian Standard AS1909-1984, immediately after fitting and prior to hanging, the entire door including the top and bottom edges must receive two coats of undercoat and two coats of paint. Doors must be sealed behind all hardware cut outs and hinges. Timber exterior doors must be kept dry prior to finishing / sealing.
- If staining an exterior grade varnish or sealer must be used and its application to be equivalent to a paint finish to prevent absorption of moisture.
- Surian Cedar and Western Red Cedar doors must NOT be finished with a polyurethane varnish. M&B recommends using Sikkens - refer to an M&B brochure, or visit our website mbsales.net.au
- Doors exposed to direct sunlight MUST be finished in light reflective colours to reduce heat absorption, which could cause warping.

Door Care & Maintenance

- Periodic maintenance to the door and door frame finishing will be required to prevent paint breakdown.
- Bottoms of doors must be correctly painted and/or sealed before installing door seals.
- See M&B's Door Protection, Finishing and Maintenance Guide on our website mbsales.net.au

BAYSWATER	144 Beechboro Road South	08 9272 2555
SUBIACO	HomeBase 55 Salvado Road	08 6380 6000
MANDURAH	25 Hampton Street	08 9583 8000
BUNBURY	50 McCombe Road	08 9724 8900
BUSSELTON	9 Trumper Drive	08 9752 7900
ALBANY	18 Merrifield Street	08 9844 5200
GERALDTON	315 Place Road	08 9960 5000

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