

OZSTAIR

PRODUCT CARE INFORMATION

1300 365 539 | www.ozstair.com.au



ALL TIMBER CARE

Timber is a natural product and expands and contracts depending on seasons, humidity, heat, direct sunlight, wind and just the natural movement caused by the timber grain dynamics in each individual timber board. The level of movement can vary between any or just one part of your product and also varies between the species of timber, Australian Hardwoods being the most prone to movement. Whilst in most cases no or little movement occurs this cannot be guaranteed and is the maintenance risk the client is taking selecting a wide board product. With wide board products 'NO WARRANTY' is given for movement, splitting, shrinking or buckling as this cannot be controlled with a "SOLID WIDE BOARD PRODUCT" and you must be aware this is part of the Natural product selection maintenance you may have to address throughout the life of the product.

MDF CARE

Much like Timber, MDF should not be exposed to the weather, as this product can swell if wet, and over time cause the product to move and squeak. Pending how much liquid this product has absorbed, the damage can be irreversible will require a full replacement.

HOW TO LIMIT MOVEMENT?

- We highly recommend that you seal/stain/paint your timber within 7 days after install
- Paint or Polish both top and bottom of your timber to seal both sides
- Do not install hot water heaters, exhaust fans or lighting under the staircase
- Do not install floor heating and air-conditioning in the staircase area
- Do not have a window in direct line of your staircase
- Do not expose the staircase to sub floor areas
- You could alternatively, select a laminated product, laminated products help eliminate some of the natural grain movement within a solid wide board and in most cases if movement did occur it would only be a fine hairline movement in glue joint

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HARDWOOD TIMBER

It is the policy at OzStair is to see that care is taken in the procurement, selection and manufacture of all the timber and timber-based materials, used in the manufacture of our timber components, to insure to the best of our capability, the expected long term performance of our products. Some of the many variables that have to come together to achieve this are, adherence to the relevant Australian timber standards and accepted trade practices, along with a sound knowledge of published wood technology practices.

While all of the above are important and within reason, they are able to be controlled in our factory. However once the product arrives on site it is impossible to control the level of moisture content (MC), due to weather conditions.

In the factory, we endeavour to acclimatise the moisture content in the timber and the same on site, but should the product be installed in a new building with a tight time restraint, then the majority of the building components will still contain varying amounts of moisture, that will be gradually released over a few months, after the building is occupied. The timber components will absorb that humidity, swell in width and to a lesser degree in thickness, and could produce compression forces at joints or walls etc.

Depending on the type of building involved, whether an office block, unit or house, there will generally be large expanses of glass, with a resistance to shield the view with blinds or curtains and sunlight penetration onto the timber and associated radiant heat, will lower any absorbed MC and some of the equilibrium MC, present at the time of installation. The loss of that combined moisture and especially if the premises are equipped with a commissioned, reverse-cycle air-conditioning system, will dramatically reduce the MC in the timber components and could result in width shrinkages, edge cupping, longitudinal splits and cracks which is still deemed as acceptable quality.

One result of moisture loss, for any reason, is the opening up of joints and as there is no current Australian standard that gives a guide as to when a gap becomes excessive, the Guide to Standards and Tolerances was produced in collaboration with the Victorian Building Commission, the Office of Fair Trading NSW, the Tasmanian Government and the ACT Government in 2007. The only reference to allowable gap sizes, is in Section 14, Clause 14.03 Gaps in exposed timber flooring, which states :- ‘Except where affected by exposure to sunlight, cooling, heating or other heat generating appliances, flooring is defective if it has a gap of more than 2mm between adjacent boards that extend for more than 1m. Flooring is defective if it has gaps of more than 5mm in total of three gaps between four consecutive boards’.

‘When conditions are extremely wet or dry and rapid changes in humidity occur, the timber may distort, or display surface checking, due to extreme expansion or contraction. These conditions are beyond our ability to control and therefore, where our products are to be installed in a building, the relative humidity must be maintained between 40% - 60%. In order to achieve this, humidifiers/evaporative coolers may be required in very dry weather, and air conditioners may be required in very moist and humid areas. Failure to maintain relative humidity within these levels will may result in damage to your stair.’



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STAINLESS STEEL CARE

Routine Cleaning and Maintenance both exterior and interior building components require routine cleaning, the frequency of which is dependent upon environmental conditions and aesthetic requirements.

- Permitted Grades S30400 & S31600
- Cleaning required 2 x Year for Rural Areas
- Cleaning required 3 x Year for Other Areas
- Cleaning required frequently for corrosive environments such as, sea-shore areas, near railroad tracks, near iron works, near volcanic areas, eaves, soffits, under-eave components and other building components

REQUIREMENT	SUGGESTED METHOD	COMMENTS
Routine cleaning of light soiling.	Soap, detergent or dilute (1%) ammonia solution in warm clean water. Apply with a clean sponge, soft cloth or soft-fibre brush then rinse in clean water and dry.	Satisfactory on most surfaces.
Fingerprints.	Detergent and warm water. Alternatively, Hydrocarbon solvent.	Proprietary spray-applied polishes available to clean and minimise remarking.
Oil and grease marks.	Hydrocarbon solvent.	Alkaline formulations are also available with surfactant additions.
Stubborn spots, stains and light discolouration. Water marking. Light rust-staining.	Mild, non-scratching creams and polishes. Apply with soft cloth or soft sponge, rinse off residues with clean water and dry.	Avoid cleaning pasts with abrasive additions. Cream cleaners are available with soft calcium carbonate conditions. Avoid chloride containing solutions.
Localised rust stains caused by carbon steel contamination.	Proprietary gels or 10% phosphoric acid solution (followed by ammonia and water rinses) or oxalic acid solution (followed by water rinses).	Small areas may be treated with a rubbing block comprising fine abrasive in a hard rubber or plastic filler. Carbon steel wool should not be used, nor should pads that have previously been used on carbon steel. A test should be carried out to ensure that the original surface finish s not damaged.
Adherent hard water scales and mortar/cement splashes.	10-15% volume solution of phosphoric acid. Use warm, neutralise with diluted ammonia solution, rinse with clean water and dry.	Proprietary formulations available with surfactant additions. Avoid the use of hydrochloric acid-based mortar removers.
Heat, Tinting or heavy discolouration.	a) Non-scratching cream or polish. Apply with soft cloth or soft sponge. Rinse off residues with clear water and dry. b) Nylon-type pad.	a) Suitable for most finishes. b) Use of brushed and polished finishes along the grain
Badly neglected surfaces with hardened accumulated grime deposits.	A fine abrasive paste as used for car body refinishing. Rinse clean to remove all paste material and dry.	May brighten dull finishes. To avoid a patchy appearance, the whole surface may need to be treated.
Paint, graffiti.	Proprietary solutions or solvent paint stripper depending upon paint type. Use soft, nylon or bristle brush on pre-treated material.	Apply as directed by manufacturer.

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WHAT CAUSES STAINLESS STEEL TO RUST?

- If it is exposed to an aggressive environment e.g. highly polluted air, salt solutions or residues of cleaning agents containing chlorine;
- If it has a rough surface finish that provides a foothold for corrosive substances and corrosion products from the surroundings;
- If the design of the structure is inappropriate, with pockets and narrow gaps;

RISK
These are the highest risk for the lower alloy stainless steel grades and can be reduced substantially right from the start by specifying molybdenum alloyed stainless grades (such as type 316)

- If the surface is contaminated by grinding swarf and other iron particles from tools used in the installation work;
- If fasteners of ordinary steel are used for securing the material, or if the material comes into direct contact with adjacent components made of plain carbon steel in wet or humid conditions.

RISK
The surface of the stainless steel will be discoloured by rust from the plain carbon steel.

STAINLESS STEEL CABLE BALUSTRADING

Stainless Steel Cable Balustrading can make noise caused by the vibration as you walk on a staircase. This is the nature of a steel on steel product and this can be exaggerated by the type of staircase design you choose. For example, a steel or timber mono staircase by its nature have movement/ vibration as you walk on it which will also enhance the noise of the wire balustrade. Wire balustrade will also over time loosen and may require re-tensioning maintenance (this is not a warranty item). If unsure on how to re-tension, please contact OzStair.



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F.A.Q

1) Why has the movement only occurred in one or a few of the product parts?

Each individual timber product has its own timber grain dynamics and will react differently in a given environment or situation.

2) Why has this only occurred in the landing or winder turns?

When timbers are glued up into a large section each board within that wide board glue up reacts differently and the effect can be multiplied. This cannot be controlled with wide board section although in most cases it is successful although is the maintenance risk of selecting a natural wide board timber product.

3) Why has the landing or winders come apart at the glue joints?

All board are glued using industry recommended adhesives and joints are also biscuit joined together. This though still remains the 'weakest' part of the large board section and if movement occurs it will take effect usually along the weakest point 'being the glue joint'. This is not a glue joint failure rather as mentioned above the timbers natural movement that cannot be controlled.

4) Why does it look like the grain is separating?

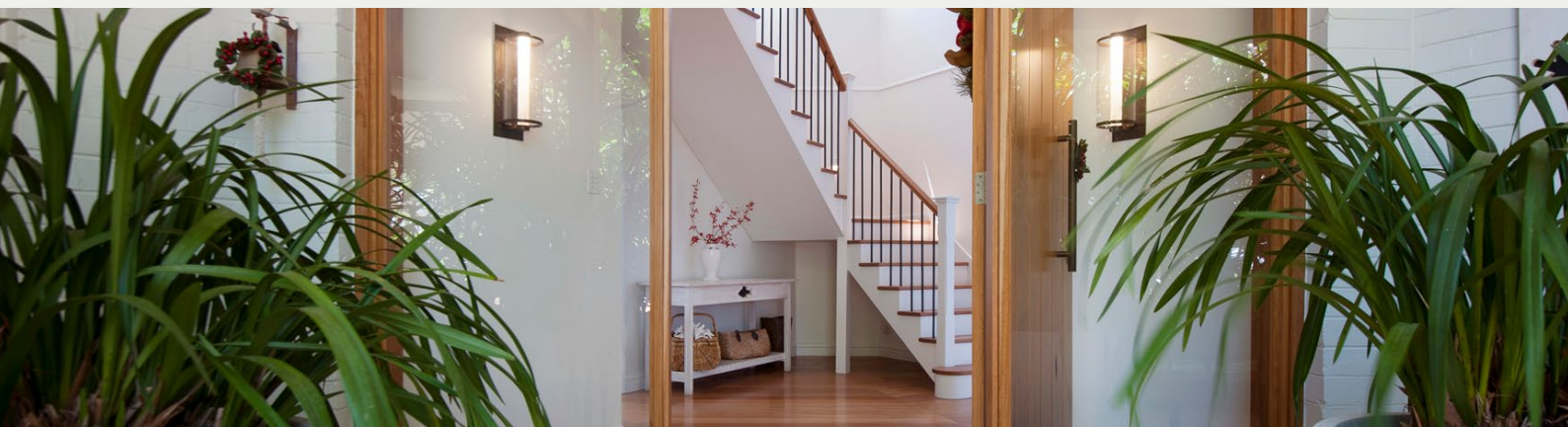
This is the natural shrinkage of timber that may or may not occur over the lifetime of product

5) Why has fine cracks along walls or edges of painted stringers occurred?

This can be generally 2 things: · In most cases with timber framed houses the timber studs in the walls shrink and this will cause fine cracks down corners of walls along timber skirtings and also around the boarders of staircase timbers to wall and floors. This is usually addressed by gap filling but it also can cause the staircase to move/rub on walls. This can be addressed by tightening all the wall fixings under the staircase and pulling the walls tight to staircase again. All are maintenance risk of the natural product selected. · The natural timber staircase product has shrunk or expanded naturally and pulled timbers away from walls or floors – This again can be addressed as a maintenance issue with a natural product

6) How come the timber floors haven't moved but the staircase timbers have?

Timber flooring is a narrow and thin timber board product and therefore has less movement. The natural grain dynamics in flooring have been reduced by making it into a small timber sections. There is clear Australian Standards regarding 22mm timber flooring products and the amount of movement generally acceptable. With staircase timbers the solid timber product is a full width timber product across the width of a tree and has a greater width from 32 to 42mm. There is no Australian standard governing movement in staircase wide board products because it cannot be controlled or have a standard as each section of timber reacts differently. This is the purpose of this product care document to make our client aware of the product they are selecting.





OUR SUPPLIERS

OzStair has a strict policy of only sourcing our material from reputable timber suppliers who test for correct moisture content this though cannot control environmental impact. Slight gaps may appear to newel posts, landings, treads etc. from time to time and may close again. These are not considered a defect but a stabilization of the material or reaction of the material in an unstable environment.

A common maintenance required by the client when gaps may appear is to put a colour matched expandable caulking material in the gap, so if the material continues to move the caulking material will move with it. By placing hard putty in a gap it will crack and breakout if the material continues to move.

OzStair uses Guide to Standards and Tolerances which was produced in collaboration with the Victorian Building Commission, the Office of Fair-Trading NSW, the Tasmanian Government and the ACT Government in 2007. This identifies what is considered acceptable movement in timber. A copy of the Guide to Standards and Tolerances is available on your request.

We hope this information was helpful!

If you wish to speak to us further regarding your product care please do not hesitate to contact our office.

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