Life Plas[®] Decking Guide Essentials

Essential Information and Recommendations from the LifePlus[®] Decking Guide

Following is essential information about *LifePlus® Decking* and the recommendations for its use, to assist in the delivery of a decking project which will perform well over a long life. This document is written for those with experience and knowledge of building materials

and practices, such as experienced DIYers, designers and builders, as it addresses the critical issues involved in building a deck but does not contain the more detailed explanation for recommendations as contained in the *LifePlus*[®] *Decking Guide*.

We wish you success and many years of satisfying performance from your timber deck.

➢ LifePlus[®] Decking is a unique and high quality hardwood decking offering improved performance and longer life in fully weather-exposed conditions¹. The nominal dimensions of LifePlus[®] Decking are 88mm wide x 21mm deep.

> The LifePlus[®] Decking System is an integrated system of best practices in design; construction and finishing materials; and construction, installation, finishing and maintenance practices developed to deliver a satisfying decking project which performs well over a long life.

> The decking project shall comply in all respects with the Building Code of Australia (BCA). In addition the following good practices shall be implemented.

Structural timber shall have appropriate strength, quality, durability, shrinkage and weathering characteristics and termite resistance to give satisfactory performance over the life of the deck.

> Specifying timber requirements according to strength (or stress grade) will only ensure that the timber supplied is of sufficient strength, when first installed, to perform a structural purpose.

Commonly available stress grades in unseasoned structural hardwood are F14 and F17 with F7 being commonly available in seasoned softwood.

➢ In hardwood, the timber strength specified may depend on availability in your area, however, F14 should be the minimum stress grade specified, considering the type and extent of natural characteristics allowed under the grading rules for the various stress grades. F17 Hardwood is preferred for weather exposed conditions as it generally includes a lesser number and size of natural characteristics, which can be a source of accelerated deterioration when exposed to the weather.

The *LifePlus[®] Decking Guide* provides span tables for F14 Structural Hardwood.

Note on lower hardwood stress grades: In some areas, hardwood structural timber may only be readily available in lower stress grades and lower durability.

Structural timber in F11 stress grade may be suitable, provided that it is: minimum durability class 2 (*outside above ground classification*); of low shrinkage or seasoned; well ventilated; not used in conditions of consistent high humidity and used in combination with other good building practices, particularly the sealing of cut ends and sealing of the tops of joists with a waterproof membrane to shed water away from the joist. For structural timber of durability class 2, these requirements would be necessary to satisfy the performance requirements of the BCA.

In softwood, seasoned F7 should be the minimum stress grade specified.

Softwood structural timber shall be well ventilated; not used in conditions of consistent high humidity and used in combination with other good building practices, particularly the sealing of cut ends and sealing of the tops of joists with a waterproof membrane to shed water away from the joist.

Stress grades are often used as a primary specification for timber used externally, above or in ground. However, stress grades are an imperfect guide for overall suitability of timber for fully weather exposed conditions as other characteristics, such as quality, durability, shrinkage, and weathering properties, are also important.

➤ Timber supplied to a stress grade will contain natural characteristics, such as knots, to the extent allowed in the grading rules and will not guarantee supply to a visually attractive standard that you may consider appropriate for your situation. If you require appropriate strength together with a high standard of appearance, specify "Structural Appearance Grade". If the appearance of your structural timber is an issue which is important for your project, speak to your timber merchant about the visual standard of the timber which would be supplied.

> Natural durability is the ability of the heartwood of a timber species to resist decay and insect attack. Durability is categorized into 4 durability *classes* – from Class 1 for highly durable species to Class 4 for non-durable species, with each durability class having a probable life expectancy for "in-ground contact" and "outside above ground"².

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¹ Compared to traditional decking

It would be expected that the life expectancy of timber *above-ground* would be better than *in-ground*, reflected in the above-ground rating for a species being the same as or better than the in-ground rating.

We recommend that only durability class 1 hardwoods, or appropriately treated seasoned softwoods be considered for use for each of the inservice conditions "outside above ground" and "in ground contact".

- Where the underside of the structure is greater than 400mm above the ground this should be considered an above-ground application and subframe timbers shall be: selected durability class 1 (outside above ground classification) structural hardwoods with sapwood treated to H3 (hazard level 3); or structural softwoods treated to H3.

- Where the underside of the structure is less than 400mm above the ground, this should be considered an in-ground application and subframe timbers, including posts, shall be selected termite resistant durability class 1 structural hardwoods (in ground contact classification) with sapwood treated to H5; or structural softwoods treated to H5.

Posts extending into footings shall be selected durability class 1 hardwoods (*in ground contact* classification) with sapwood H5 treated or H5 treated round softwood posts.

Note that using termite resistant species does not negate the requirement for termite protection in accordance with the Building Code of Australia.

If using unseasoned hardwood structural timber, use only low shrinkage timbers ie in the order of 6% to 8% tangential shrinkage. Ideally, a single species, or mixed species but with similar characteristics shall be used to ensure that similar shrinkage occurs in all the structural members.

High shrinkage species are subject to "collapse", distortion and excessive reduction in section size during on-site seasoning. High shrinkage and widely varying *differential shrinkage* between species, over time can result in unevenness in the decking surface, unsatisfactory appearance and even structural problems.

If using softwood structural timber, use only seasoned timber for reduced distortion of the structural members and greater stability and uniformity of the overall subframe.

> The natural properties of some timbers, in resisting excessive swelling and shrinking, surface checking and distortion, make them more suited to weather-exposed conditions than other timbers. Similarly, some timbers have natural properties which are not suited to weather exposed conditions and their use should be avoided. Suitable structural hardwoods include: (footnotes provide additional essential information):

For above ground³: Spotted Gum and Blackbutt⁴ For above & in-ground⁵: Iron Bark, Forest Red Gum⁶, Grey Gum⁷, Grey Box (Gum-topped Box), White Mahogany, Tallowwood and Gympie Messmate.

These are "standard trade names⁸". There are many species referred to by local names which are similar to standard trade names but which may have different properties. Ensure that species with similar or local names but with inferior properties are not substituted for the species listed above.

The supply of suitable unseasoned structural hardwood should be ensured by specifying:

- stress grade,
- appropriate timber species,
- treatment level (particularly if H5 is required) and
- appearance quality (if required).

Suitable Structural Softwoods

The supply of suitable structural softwood should be ensured by specifying seasoned F7 softwood and treatment level (particularly if H5 is required for inground contact conditions).

> LifePlus[®] Decking is an improved solid timber decking, which delivers longer life plus improved performance in comparison to traditional decking.

Specify *LifePlus[®] Decking* with confidence that your decking timber will perform well over a long life.

The *LifePlus[®] Decking* profile is an improvement on the shape of traditional decking and incorporates:

- A warp-reducing groove and ripple on the underside, which reduces distortion and improves ventilation between the decking and joist, making the decking and joists last longer, and

- **Tapered sides**, which assists in self cleaning of the deck, by allowing any debris which enters the gap between the boards to fall through and improves ventilation between the decking and joist.

3 These species are classified in AS 5604 - 2003 as durability 1 outside above ground and durability 2 in ground contact. 4 **Blackbutt** (Eucalyptus Pilularis) is not to be confused with, and should be used in preference to, New England Blackbutt (Eucalyptus Andrewsii) which has a lower durability and higher shrinkage than Blackbutt. Blackbutt is best used under cover. 5 These species are classified in AS 5604 - 2003 as durability 1 outside above ground and durability 1 in ground contact. 6 **Forest Red Gum** (Eucalyptus tereticornis) – sometimes referred to in Queensland as "Blue Gum" - is a high durability & low shrinkage timber suitable for external use & is not to be confused with "Sydney Blue Gum" (Eucalyptus salilgna), a low durability & high shrinkage timber **unsuitable** for weather exposed use 7 **Grey Gum** (Eucalyptus Propingua) is a high durability & low

7 Grey Gum (Eucalyptus Propinqua) is a high durability & low shrinkage timber suitable for external use & is not to be confused with "Mountain Grey Gum" (Eucalyptus Cypellocarpa), a low durability & high shrinkage timber unsuitable for external use.

8 Standard Trade Names from Technical Pamphlet 1 – Building Timbers – Properties and Recommendation for their use in Queensland – published by Qld Forest Service

LifePlus[®] Decking is available as:

- *LifePlus[®] Natural Decking*, which has a natural textured exposed face, for situations where improved slip resistance is a consideration or where a more natural appearance is preferred, and

- LifePlus[®] Classic Decking, which has a smooth dressed finish, for situations where a traditional appearance is preferred and slip resistance is not a consideration.

The exposed surface of LifePlus[®] Natural Decking is sanded during machining, removing loose splinters and leaving the natural textured form of the sawn surface. The natural face also performs better than a dressed face when exposed to the weather.

LifePlus[®] Decking is manufactured from "selected hardwoods" - high quality, durability 1 (outside above ground classification) treated hardwoods with proven durability, stability and weathering characteristics to deliver superior performance in weather exposed conditions. *LifePlus[®] Decking* is not produced from "mixed hardwoods", which can be supplied from a variety of hardwood species including some which are of lower durability, higher shrinkage and lower stability than we would consider acceptable.

➢ LifePlus[®] Decking is supplied as a dried hardwood product with a maximum moisture content of 15%.

If decking is to be installed in areas of consistent extreme low humidity, eg in drier far western areas or in areas of consistent extreme high humidity, eg in rainforest areas, then decking with an appropriate moisture content shall be ordered, or standard decking acclimatised to the local EMC (equilibrium moisture content) by strip-stacking before installation.

If using decking with standard moisture, in areas of low or high humidity, make suitable allowance for the corresponding shrinkage or expansion which will occur.

> The greatest enemy of exposed timberwork is moisture. Decking projects in high humidity or rainfall areas require greater attention to design, detailing and construction and maintenance practices.

> Unless other design restrictions dictate the orientation, where possible, design your bearer and joist orientation so that the decking boards are laid in the same direction as the longest open face of the deck exposed to the weather and not as a large number of same length boards across the deck.

If a section of deck becomes weather damaged it will then only be necessary to replace some runs of boards rather than replace all the boards or cut and replace the damaged ends.

Joists and Bearers are not to carry roof loads (i.e. any roof or pergola supports are to be directly above the deck supports).

Maximum joist spacing for *LifePlus[®] Decking* is 450mm centres.

Wider joists (ie 50mm unseasoned hardwood, 42mm seasoned hardwood or 45mm seasoned softwood) shall be used to allow the placing of fixings in a formal staggered alignment/pattern, thereby reducing the likelihood of split joists.

Wider joists are also better for joining of decking boards over the joist as the fixings can be placed further from the end of the board, thereby reducing the likelihood of the fixing splitting the end of the board.

If looking at having timber decking as part of a steelframed home, it may be necessary to incorporate timber into your steel system. Decking can be fixed to timber which has been attached either to the top or side of the steel joist. Direct fixing of timber decking to metal joists with self drilling screws may result in a weakening and eventual failure of the screw in the long term. Please refer to your steel framing supplier for further information on how timber decking can be incorporated into the design.

> Termite protection shall be provided in accordance with the requirements of the Building Code of Australia for both protection of your deck and to prevent termite access through or across your deck to any adjoining dwellings or structures. Provide *easy* means of access to the underside of your deck for regular competent physical inspection for the presence of termites. Gaps incorporated for termite inspection between posts on stirrups and concrete footings shall be a minimum of 75mm. If evidence of termite activity is found, contact a licensed pest treatment professional to arrange urgent treatment.

> The area which will be under a completed deck shall be adequately graded, drained and ventilated so that the area is dry in normal conditions and dries quickly after wet weather without water pooling. Retained humidity in the sub-floor increases the risk of decking distortion, termite attack and accelerated decay.

➤ LifePlus[®] Decking shall be protected from damage from both moisture and excessive heat, and packed up off dry ground to allow a free airflow, while stored on site prior to installation.

> Seal all cut ends, checked joints and timber-totimber interfaces in structural timber or detailed timberwork to reduce the absorption of trapped moisture, which may lead to accelerated deterioration of the timber. In the case of a structure to be painted, the sealing of timber-to-timber interfaces *during construction* is particularly important, as trapped moisture which is absorbed into end or face grain cannot dry out through the paint film.

Timber-to-timber interfaces include:

- A bearer or brace bolted to the face of a post;
- A joist end sitting on or butted to a bearer;
- A handrail butting onto a post;
- The face and ends of balustrading fastened to a handrail.

For pressure treated structural timber which is not to be later painted, a heavy bodied timber preservative such as Koppers Arch CN Emulsion is an appropriate sealer, absorbing into and sealing the end or face grain. However, CN Emulsion will be noticeable as a darker coloured oily area around the joint. This darker coloured area may not be suitable for appearance and will stop paint adhering.

Alternatively, you could use a liberal application of an oilbased primer/undercoat as a sealer, coloured if required for appearance. An oil-based primer/undercoat is also suitable for sealing structural timber which is to be painted.

For detailed timberwork, such as handrail timbers or balustrading, any cut-ends, and the abutting surfaces should be sealed during construction.

> All bolts, screws, nails, brackets, framing anchors and other hardware in fully weather exposed conditions should be hot-dipped galvanized or stainless steel (depending on conditions) to ensure satisfactory long-term performance of the fasteners.

In corrosive environments such as in coastal areas or around pools, all fixings, including connector nails, shall be stainless steel.

➤ Timber posts should ideally be installed on commercial quality brackets cast into engineered concrete footings or, if necessary, extended into the footings. Position the bracket vertically so that the timber post will stand clear of the horizontal bar on the stirrup by 10mm, clear of the top of the concrete by 75mm and 100mm above ground level (bar clear of concrete by 65mm).

Concrete around the post brackets so that the top of the concrete is above ground level sufficiently that dirt will not collect on top of the concrete (indicatively 25mm).



Timber posts extending into the footings shall be sealed below ground with Koppers Arch CN Emulsion and set into "no-fines" concrete with a layer of "no-fines" concrete at the base, to allow water to drain, in accordance with the engineering design but a minimum of 100mm. Standard concrete can hold moisture around the post and cause accelerated deterioration. The top of the no-fines concrete shall be sealed with mortar and sloped away from the post to shed water.

> Where the bearer is to be checked into the post check out the post no greater than allowed under the Building Code of Australia.

> Apply a timber sealer to the bearer and post where they will be in contact, as moisture trapped at the interface may lead to accelerated deterioration.

➢ Before placing the joists, seal the top edge of the bearer, with a heavy coat of CN Emulsion, or one coat of oil based primer plus one coat of paint finish, to reduce water penetration and accelerated deterioration.

> Before fixing the decking, seal the top edge of each joist with either CN Emulsion, a primer plus finish coat or, as we strongly recommend, a waterproof membrane (such as Malthoid, a bituminous dampcourse), for a more effective seal which will also reduce water entry around the fixing and shed water from the joist.

CN Emulsion, applied to the top of joist, may be absorbed upwards, causing an oily mark on the top surface around fixings and at butted joins in the decking. Regular application of a decking oil or stain will make any oily mark less apparent, however if this is likely to be an issue in terms of appearance, use an alternative sealing method.

> Decks on columns shall be braced to prevent lateral movement in accordance with AS 1684.2 -1999. Bracing shall be minimum of double diagonal 100x50mm minimum F14 hardwood braces, halved at the crossing. We recommend timber, rather than threaded rod, for bracing of columns, as timber braces provide a more rigid bracing effect and will not "sing" in windy conditions.

> We recommend the use of penetrating oil or stain finishes to protect decking from weathering. To achieve maximum life from your decking, apply an appropriate sealing coat to all surfaces, including cut-ends, before laying.

For a decking oil or stain, use one coat of the intended finish as a sealer, *with the finish liberally applied to the absorbent end grain*. An exterior polyurethane will provide a more effective and longer lasting end grain seal – applied carefully so as not to coat the faces of the board.

If using a stain finish, be careful not to overload the surface and to brush out any excess stain.

Clear film building decking finishes may require a period of seasoning or surface preparation before applying the finish. Refer to the manufacturer's recommendations to determine if pre-treatment is suggested before laying.

We do not recommend the use of a paint finish for decking. If you are committed to using a paint finish for decking, ensure that the manufacturer recommends the intended paint for use as a decking finish and follow the manufacturer's recommendations carefully. Normal exterior paints are *unlikely* to be suitable for use as a decking paint.

> Lay the decking boards, *using spacer blocks* to create a 3 to 5 mm gap between adjacent boards to allow for swelling and shrinking in response to changes in atmospheric moisture content, water runoff and cleaning.

Small differences between the moisture content of the decking as supplied and the local Equilibrium Moisture Content (EMC) can be allowed for by applying a gap at the lower end of the range if the decking is likely to shrink, or at the upper end of the range if the decking is likely to swell.

In determining whether the moisture differential will cause movement in the decking, confirm the moisture content by accurate measurement of the decking boards supplied.

Boards shall not be butted together in anticipation of significant shrinkage, or laid with a large gap in anticipation of significant swelling. If significant shrinkage or swelling is expected, decking with appropriate moisture content shall be sourced or standard moisture content decking acclimatised on site prior to laying.

Butt joints shall be staggered so that they do not occur on adjacent boards.

Butt ends should be cut with a slight backward undercut to assist in achieving a tight fit. The slight gap created by the undercut will also: reduce the potential for accelerated deterioration of the board ends as less moisture will be trapped and absorbed into the end grain; and assist in ventilation of the board ends, allowing any moisture which has been absorbed to dry out more readily.

Selection of the correct fixing and fixing method is critical to the satisfactory long-term performance and appearance of timber decking.

In weather exposed domestic applications subject to light foot traffic, LifePlus® Decking shall be screwed or hand nailed with two fixings per board at each joist.

50 x 10G LifePlus Decking Screws (stainless steel with square drive and self-embedding head) will provide improved hold down, corrosion resistance and resistance to working out than nails.

Nails shall be domed head (DH), twist shank (TS) type in stainless steel (SS) (preferred) or hot-dipped galvanised (HDG) (depending on severity of exposure conditions) -

For hardwood joists, use 50x2.8mm DHTS nails (as above)

For softwood joists, use 65x3.15mm DHTS nails (as above)

Twist shank nails provide a stronger and longer-lasting fixing than traditional hot-dip galvanised bullet head nails.

T-Nails (50x2.2 Finishing Nails or 50x2.5 Flooring Nails), plain steel or zinc plated nails shall *not* be used to fix decking or in any external application.

Although 50x2.5 stainless steel domed head gun nails are readily available and commonly used for fixing decking, we recommend screwing or hand nailing with 50x2.8 twist shank nails for hardwood joists and 65x3.15 twist shank nails for softwood joists as this will provide greater initial hold-down and there is sufficient history of use to be confident of long term performance. Your nail supplier may be able to provide additional information on gun nails for decking and a recommendation as to suitability.

Decking should be drilled with a small pilot hole where it is to be fixed to the joist, to avoid splitting (test on off cuts).

If a pilot hole is required in hardwood joists, it should be of minimum width and depth to allow the screw or nail to be driven without shearing off the screw or bending the nail and without damaging the nail head, while ensuring the maximum hold-down force is maintained to hold any movement of the decking.

Drilling a pilot hole that is wider or deeper than necessary will make screwing and nailing easier but will result in reduced hold-down and potentially movement of the decking boards and working out of the fixing.

The size of the pilot hole needed will vary between species, depending on hardness and may not need to be drilled full depth. Determine the correct size and depth of pilot hole for your materials by testing with off-cuts of decking and joists.

To reduce the possibility of splitting the joist, the screw or nail fixings shall be placed in a formal and controlled staggered alignment. Refer to screw installation recommendations for required screw edge clearance and stagger. Nails shall be fixed with a 10 to 12mm stagger, with a minimum of 12mm edge clearance).

Split joists are likely to result in: a reduction or total loss of hold-down forces, allowing movement and distortion in the decking; nails "walking-out" of the deck as the decking moves under foot traffic and accelerated deterioration of the joist as water enters the split and is not able to dry out readily.



If galvanised bullet head nails are to be used for fixing *LifePlus*[®] *Decking* to hardwood joists, in weather protected domestic applications, the nails shall be in a formal staggered alignment and driven inward at an angle towards the centre of the joist (ie as skew nails).

Where decking boards terminate or are joined at a joist, fixings should be 12mm from the end of each board, For nails, the board should be predrilled to approximately 80% of the nail diameter to avoid splitting (test on off cuts).

Fixings may have to be skewed slightly inwards to achieve the necessary clearance to the end of the decking board and edge of the joist.

Adjacent fixings should be driven at slightly different angles to reduce the possibility of splitting the joist between the fixings.



Nails, whether domed or bullet head, should be driven only so that the head pulls the board down tight onto the joist. Nails shall not be punched into or below the decking surface.

"Punching" of bullet and domed head nails will leave a depression in which water can pool and soak into the timber, accelerating deterioration and leading to a reduction of hold down force.

If the nail head becomes slightly "proud" of the surface, due to the board or joist shrinking, the nail can be lightly driven, after, say, 6-9 months (under normal conditions), so that it is again flush with the surface.

"Punching" of domed head nails will also severely damage the timber around the head of the nail.

LifePlus® Decking used in *light-duty commercial applications* subject to medium volumes of foot traffic should be fixed with screws (eg 50x10G LifePlus Decking Screws).

For commercial applications subject to high volumes of foot traffic use commercial standard decking and fixings.

➢ Effective initial finishing and regular ongoing maintenance is essential to protect *LifePlus[®] Decking* and the structural timber from the damaging effects of weathering and to maintain an attractive appearance.

Vacuum pressure impregnation (VPI) treatment of *LifePlus[®] Decking* is intended to protect the sapwood from insect attack and decay and does not provide protection against the damaging effects of weathering.

Decking is particularly susceptible to weathering damage and particular care should be taken in its

finishing and maintenance to ensure performance and longevity.

Raw linseed oil, or mixtures containing raw linseed oil, can encourage mould growth in timber and should not be used as a natural finish unless contained in a commercial product containing mould inhibitors.

Clear film building decking finishes, properly prepared, applied and maintained, as an integrated system, can give good service over a long life although will likely be more slippery when dry and particularly in exposed conditions when the surface is wet. Clear film building finishes should only be used where slipping is not an issue. Applying film building finishes without attention to the whole system may result in unsatisfactory performance and reduced life.

Understand and put into practice the preparation, application and maintenance instructions provided by the manufacturer. Refer any queries to your supplier or manufacturer.

Decking should not be coated with any finish which leaves a slippery gloss coating on the surface as the deck may become slippery and difficult to traverse, especially in wet weather.

Once the decking has been laid, apply another liberal coat of the chosen oil or stain finish to the exposed surface. Refer to the manufacturers recommendations as to whether a third coat would be beneficial.

The finish should be applied to a run of three to four adjacent boards along the full length of the deck, and not across the width. The gap between the boards can then be used to separate each run, so as to avoid an overlap of finish, which would result in a variation of colour density. Only apply as much finish as the timber will absorb. Do not load the applicator too heavily and push the finish well out along the timber. "Back brush" the coated area to push the finish into the surface. After allowing a short time for the finish to absorb, but while it is still wet, "dry brush" the coated area to even out any patchiness resulting from irregular application or variations in the rate of absorption into the timber. If more finish has been applied than the timber will absorb. brush any excess onto unpainted sections or remove by wiping with a soft cloth.

> The main enemy of an exposed timber deck is moisture. Except for the effects of weather over which we have no control, wherever possible keep your deck dry. Decks should not be hosed down or subjected to regular wetting from irrigation systems. Pot plants should be placed in drip trays standing on small cleats clear of the deck. Any leaf material and debris should be broomed off, rather than hosed off, at regular intervals.

> To achieve satisfying long-term performance from timber decking, perform regular and effective maintenance including re-application of the decking finish at appropriate intervals. Decking in weatherexposed conditions will require reapplication of the decking finish at shorter intervals than in protected conditions. Oil or stain finishes should be re-applied while the timber retains some water repellency. Water 'beading' on the surface indicates that the water repellency is effective. Water absorbing into the surface indicates that the water repellency is being reduced or has been lost.

In "average" conditions, you should expect protection for 9 to 12 months from oils and 12 to 18 months from stains. In severe conditions, such as around pools, recoating is likely to be necessary at shorter intervals. Although decking oils and stains require recoating at relatively short intervals, the recoating process is relatively simple and speedy. Finishes should be re-applied in the period before the most severe weathering conditions.

Decking Oils generally contain UV inhibitors, which may slow the natural greying of timber over time.

If decking timber has begun to turn a silver grey, the colour can be restored by the application of a coloured decking stain, which is best applied at appropriate intervals before a strong grey colour develops.

If a paint system has been used, take care not to damage the paint film, repair any damage as soon as it is apparent and re-coat the finish while in good condition.

Some raising of the timber grain may be experienced on the exposed face from weather exposure. If this occurs, a moderate hand or machine sand will remove the raised grain in the affected areas.

Pay careful attention to safety during construction. Working practices, site organization and site access shall comply with Workplace Health and Safety Requirements.

Wear suitable safety equipment when appropriate eg snug fitting work gloves, eye protection, ear protection and a dust mask. Pay particular attention to safe practices when using ladders, grinders and power saws (tools which are the cause of many DIY accidents).

Read and adhere to the safety advice which is provided on the product or in the product manual.

Always ensure you are working on and from solid surfaces and that you have good control of any tool. Exercise care when lifting, carrying and twisting under load. Keep the work area tidy, free of waste or excess materials which could be a tripping hazard. Stack building materials securely and prevent access to the area by unsupervised children.

Do not burn any treated off-cuts as this may create toxic vapours. Dispose of any treated off-cuts in landfill. In handling treated timber, use normal hygiene practices.

Anticipate what could go wrong in each situation and make appropriate changes to reduce risk to the maximum extent possible.

An injury prevention brochure is available from http://www.monash.edu.au/muarc/reports/Other/diyfacts.html

A link is provided on the *LifePlus[®] Decking* Website *Information* page.

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Please note that the information and recommendations contained herein have been prepared with due care for the purpose of providing useful information to assist in the delivery of timber decking projects which perform well over a long life.

Whilst every effort has been made to ensure the accuracy of these recommendations and their consistency with current best practice, Timber Innovations Pty Ltd and Timber Queensland Ltd accepts no responsibility, liability or claims, for errors in or omissions from, these recommendations, nor for work done or omitted to be done, in reliance on these recommendations.

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2003100493, Australian Patent Application No 2003204845. Australian Design Registration No 155986.

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