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TECHNICAL DATA SHEET
ISSUED BY TIMBER QUEENSLAND

ACCEPTABLE APPEARANCE FROM TIMBER FLOORS

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RECOMMENDED PRACTICE // MARCH 2014

There are no standards that outline what an acceptable appearance of a timber floor should be. There are standards that relate to the manufacture of timber flooring and when recommended sanding and finishing practices are undertaken, there is a general level of acceptance of the finished product in the marketplace. Floors of the same species can differ markedly in their appearance depending on timber source, age of the tree, board cover width, the finish system used and the lighting in which the floor is viewed. Timber is a natural product that will shrink and swell in response to changes in atmospheric humidity, no building environment is the same as another, the sanding and finishing is not undertaken in a dust free factory environment and finishes may darken with time. Even with these variables a high standard in the finished floor is achievable.

ACCEPTABLE APPEARANCE

Colour, Species and Grade

The overall colour or blend of colour in a floor is dependent on the species or species mix chosen and the character of the floor. The features present in a floor, such as gum veins, is determined by those features permitted by the grade. Even when a single species is chosen there can be a wide variation in colour and it is also possible that a limited number of boards of a different species may be present due to similarity in appearance. It is also important to realize that grading rules do not cover either colour or colour variation. Grade names that do not align with the Australian Standards are likely to be similar to those in these standards but clarification should be sought regarding differences.

The grading process is rapid and relies on quick visual assessment where graders must assess the size and extent of a feature without relying on measurement. Due to this some inaccuracy in grading can occur that may result in a limited number of boards that are outside grade limits. The sanding of a floor can also increase the size of some features or cause features to appear that were not present prior to sanding. Consequently, some boards in a finished floor may not meet the specified grade description. The presence and development of such features needs to be acknowledged by those purchasing timber floors. When viewing a floor there is generally a clear difference between a floor that is of the incorrect grade and a floor where grade limits have been exceeded in some boards.

Where the number of boards in a floor that has features that exceed grade limits, in terms of size and number, are relatively few (less than 5%) and the overall appearance of the floor is in line with the chosen grade, no remedial work is considered necessary.

Grading also does not account for the distribution of features, in boards, between boards within a pack of flooring or within a finished floor. As such it is a reasonable expectation that the installer, when laying the floor, will provide a relatively even distribution of colour and feature throughout the floor. With regard to colour, however, it must also be recognised that coating a floor highlights colour differences and the extent of the change is at times not easy to discern. Similarly it can be expected that board lengths will be relatively evenly distributed in the floor and that groups of short boards or board ends will not be frequently clustered together.

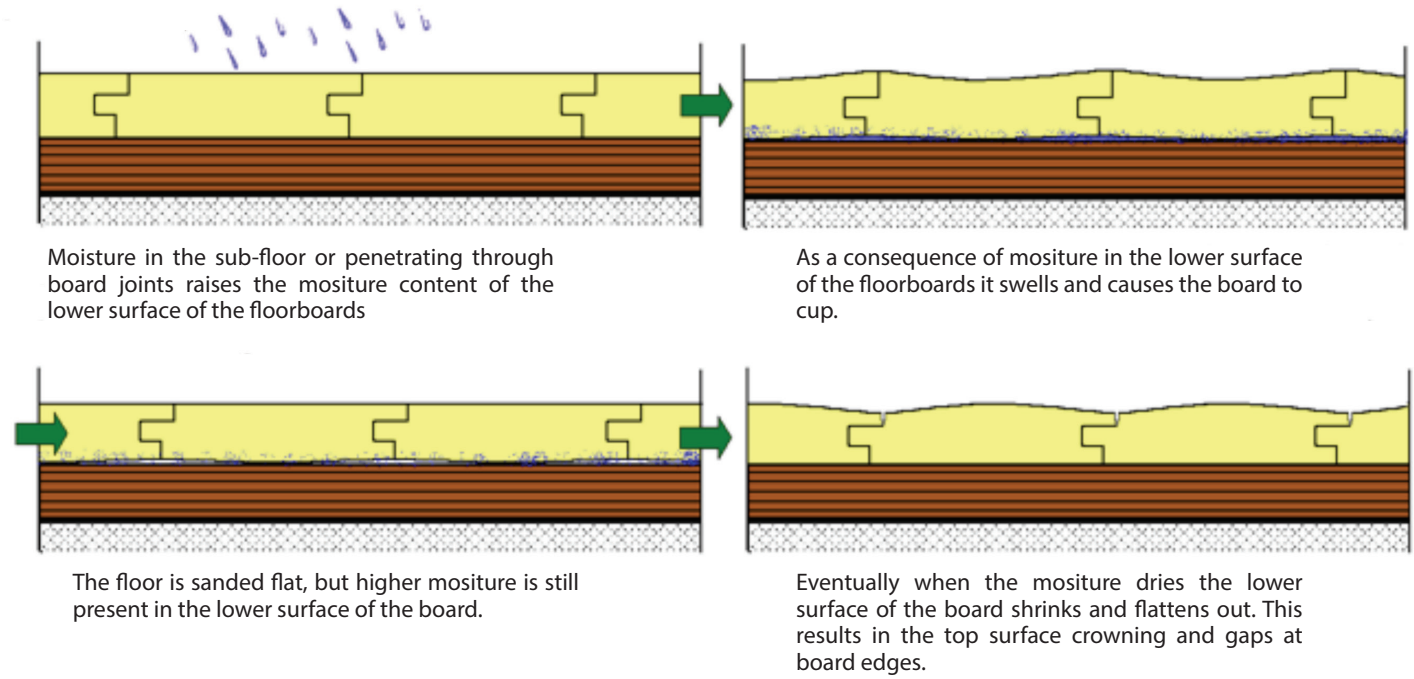
Even timber surface

The following outlines some problems that affect the surface of the boards and these should not generally occur in timber floors. However, specific heat sources from appliances or sun exposure through large uncovered windows may induce some cupping of boards in the affected area. Similarly, wide boards or thinner overlay boards may also show some slight cupping or peaking in certain house environments. It should also be recognised that the actions or inaction of owners can contribute or even cause these to occur.

- Cupping - boards with their edges either higher or lower than the centre of the board. Heat in a specific location or a very dry environment above the floor may result in cupping. Moist sub-floor spaces can also cause boards to cup. Cupping is more likely to be observed in overlay flooring and standard thickness boards that are wider than 100 mm. To some degree a small amount of observable cupping may occur in some locations within a dwelling (e.g. sun exposed floor) where these types of flooring are used.
- Peaking – this has the appearance of cupping but is the result of expansion pressure in the floor.
- Tenting - two adjacent boards, where the adjoining edge has lifted above the level of the adjacent flooring. This is often associated with high moisture beneath the floor and can be from many causes.
- Buckling - a section of flooring containing a number of boards that is raised above an adjacent section.

- Crowning - floor boards that are flat on their lower surfaces but where the upper surface has its edges lower than the centre of the board. This may occur if a floor is cupped (board edges up) at the time of sanding. Crowning does not become apparent until some months after finishing.

Note: Floors exposed to heat sources after occupancy (e.g. no curtains, fireplaces, vents from appliances, houses closed up for extended periods) may cause boards to cup. Cupping and shrinkage from such sources may be the owner's responsibility.)



Moisture in the sub-floor or penetrating through board joints raises the mositure content of the lower surface of the floorboards

As a consequence of mositure in the lower surface of the floorboards it swells and causes the board to cup.

The floor is sanded flat, but higher mositure is still present in the lower surface of the board.

Eventually when the mositure dries the lower surface of the board shrinks and flattens out. This results in the top surface crowning and gaps at board edges.

Figure 1 - The process of crowning

Relatively even gapping between boards in areas not exposed to specific heat sources

During drier times of the year, shrinkage gaps between boards may average 0.75 mm for boards of a cover width of 80 mm. For wider boards, proportionally wider average gapping can be expected. Some gaps will be larger than the average gap size and others smaller, however the appearance generally indicates gapping between most boards. An appearance can be expected that is free from split boards and wide gaps between boards that may be irregularly spaced across the floor. Irregularly spaced wide gapping may occur from either the edges of boards being bonded together or from a proportion of boards being high in moisture content at the time of laying. The provision of expansion gaps as part of the installation process and evident throughout the life of the floor is acceptable.

Limited vertical movement at T&G joints

Flooring is manufactured with the board tongue narrower than the groove. This is necessary so that boards will fit together during installation. When floor boards are laid over joists in particular, some differential vertical movement may occur between adjacent boards, when a load is applied to an individual board. This is due to the clearance between the tongue and the groove. The clearance should not exceed 0.6 mm.

Minimal Squeaking

A small amount of noise can be expected from most timber floors when walked on. Noises can occur from movement of one board edge against another or from boards moving on nails. A floor is often more noisy during drier weather due to loosening at the joints.

Indentations

Timber strip floors can be expected to show some indentations depending on the hardness of the species used, volume of traffic and foot wear worn.

A Finish with Minimal Contamination and Sanding Marks

A finish similar to that of fine furniture should not be expected. Sanded and polished timber strip floors are not finished in a factory environment and different pieces of flooring will sand differently. The home environment is also not dust free. However, the finished floor can be expected to have an even appearance free from heavy sanding marks, blooming or frequent air bubbles in the surface. A minimal level of contaminants, minor sanding marks and small depressions of the finish at board edges and in nail holes etc. may be visible. The perimeter and other hard to get at places are more likely to contain these irregularities. Due to this a mirror finish is an unachievable expectation. Some finishes will also yellow with time and if rugs are moved, a contrast in the depth of colour can be expected.

When floors are inspected for imperfections, the floor is to be inspected during daylight hours with lighting on. The overall assessment of the floor is from a standing position with the floor viewed from positions that are usually occupied by people. Internal and external reflections in areas not usually covered by furniture should be assessed. Acceptability relies on judgment that takes into consideration the effect of lighting on noticeable surface imperfections as well as initial wear of the floor, which can cause some imperfections to significantly lessen or disappear. A floor is subject to much heavier wear than furniture and although a good quality finish can be expected, the same finish quality to furniture should not be expected.

Some imperfections that could be expected to some degree in a floor but which should also be assessed include:- sanding quality; gloss variation; dust, insects and debris; bubbles and gel particles and coat leveling.

SAFE WORKING

Working with timber produces dust particles. Protection of the eyes, nose and mouth when sanding, sawing and planing is highly recommended. Refer to tool manufacturers for safe working recommendations for particular items of equipment.

DISPOSAL OF OFFCUTS AND WASTE

For any treated timber, do not burn offcuts or sawdust. Preservative treated offcuts and sawdust should be disposed of by approved local authority methods.

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TIMBER QUEENSLAND
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Timber Queensland Limited
ACN 092 686 756 | ABN 50 092 686 756

500 Brunswick Street, Fortitude Valley
Brisbane Queensland 4006

Phone **(07) 3254 1989**
Fax (07) 3358 7999
PO Box 2014, Fortitude Valley BC Qld 4006
admin@timberqueensland.com.au
www.timberqueensland.com.au