Brookridge

Why timber cladding may cause possible staining to other materials

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The following is a summary of the reasons for possible staining from timber cladding. It has been compiled with reference to information from TRADA, The Timber Research and Development Association and various coating manufacturers. The information applies to most species of timber either pressure treated or untreated.

What is an extractive?

Timber is an organic material and, as such, it contains a wide range of natural chemicals. Because of their ability move as a liquid, these chemicals are collectively referred to as 'extractives'.

Extractives tend to be more prevalent in the heartwood of a species where their concentration can be a principal cause of the darker colour of the heartwood. Many extractives are partially water soluble, so if the surface of the timber becomes wet, some of these coloured extractives may partially dissolve. One of the most common extractives found in many timber species is Tannin and this can be leached from cladding by rain.

These extractives, such as Tannin, may run off and stain other surrounding surfaces like concrete, walls, tiles, pavers and render. The Tannin extractive in particular, is likely to react with alkaline surfaces, such as concrete, to form an unsightly red/brown stain. Special care should be taken when using timber cladding above absorbent materials, as stains may be difficult to remove if left for a period. It is advisable to protect these surfaces from the run-off during the initial weathering process - this is a temporary process is temporary and should stop once the boards have begun to weather down.

Where timber cladding is to be fixed in a wet environment where it would be undesirable for leaching to occur, e.g. above a light coloured render, it may be beneficial to pre-clean the cladding prior to coating with a sealant. While it is impossible to guarantee that leaching or staining will not occur after this process, experience has proven that such an event is more unlikely, and if it does occur is of a significantly reduced nature.

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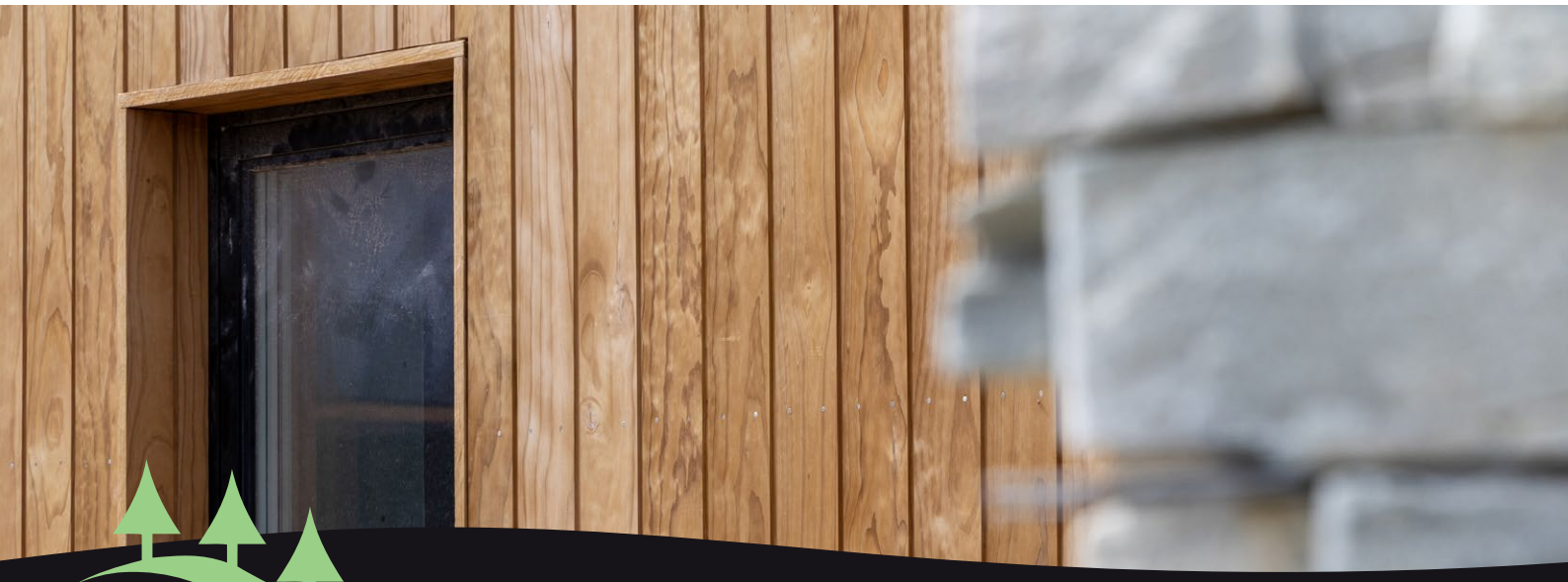
Of course, once a sealant is applied to any timber cladding this will have a service life. Once a sealant is applied then an on going maintenance programme will be required as the sealant will need to be renewed every time it reaches the end of its service life.

Alternatively, the prospect of possible leaching from a timber facade can be considered at design stage, incorporating some design features to channel stained water away from other materials on the building where staining could be an issue.

On many projects extractives, leaching from timber is not an issue as it is only a temporary thing and it will not effect the other surrounding material used on the building unduly. The main problems arise where a timber facade is used above a light coloured render, or similar product - developers and architects should be aware of the possible consequences if a timber cladding facade, in this situation, is not sealed or they do not include some design feature to channel stained rain water away from the building materials below.

If staining does occur, affected surfaces can be cleaned with dilute bleach, household detergent or a pressure spray and additionally, chemical cleaning - removal of these stains is usually a simple and easy process and there are products on the market specifically designed for this purpose.

In both cases, testing a small area first is recommended and cleaning should be carried out soon after the staining has happened to ensure it does not get 'grained' into the affected material.



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