

A. What are mould growths on treated wood products?

Mould fungi can grow in the water layer on wet and damp timber surfaces. The growth is often fluffy and may be white, green, black or coloured, depending on the species and presence of spores. Moulds feed on free sugars and starches naturally present in the sapwood of timber and on deposits or detritus that collect on the surface of stored timber.

Moulds feed on the nutrients found in water or on the wood surface and do not decay or affect the structural strength of the wood fibre itself.

Some wood species, such as pine, are more susceptible to mould growth than others.

B. What are the conditions that promote the growth of surface moulds?

The essential conditions for mould to become established are a high moisture content of the wood surface/atmospheric humidity and a favourable temperature, but the extent of infection can vary due to a range of different factors such as the type of wood, whether the timber has been infected before use, a high spore content in the surrounding environment and any surface treatment applied.

- Mould outbreaks are very site/environment specific, species specific and – in particular – specific to how the wood is stored and dried.
- Mould spores are present everywhere. The mould just needs the right conditions to start growing.
- Moulds need water or damp timber, humid still air conditions and warm weather to really thrive – damp wood in a humid environment will always be at risk, treated or untreated – particularly in wet summer months.
- Rubbish and sawdust left in damp corners and recesses can easily become infected by discolouring fungi and become a source of spores, thus increasing the risk of infection.

C. Will preservative treatment prevent mould growth?

Essentially, preservative treatment alone will not prevent mould growth –

- Wood preservatives are formulated to protect against wood destroying fungi, not moulds (which feed on the foodstuffs in the wood, not on the wood itself).
- The presence of a wood preservative alone will never cause mould, whatever the formulation.
- Solution Sterilant additives to the preservative treatment solution are designed to protect against mould spores surviving in the treatment solution. The use of these additives can complement the principles set out in section D below but can never be a substitute for following those principles.

D. What can be done to reduce the risk of mould growth?

Basic principle: If the timber surface is kept dry, mould will not be able to grow.

1. Make sure that the timber is not affected by discolouring micro-organisms before treatment. Timber already infected will not be sterilised by the treatment, when the moisture conditions are optimal, the mould may grow again.

2. Remove sawdust from the surface of the timber. The sawdust may adversely affect drying and bind water to the timber.
3. Check that stickers are not infected by discolouring fungi. Infected stickers can easily transfer discolouration to the timber.
4. Completely remove shipping wraps before treatment. Apart from trapping moisture within packs and therefore inhibiting the drying of treated wood after impregnation, treatment with the wraps still on creates an undesirable and unnecessary contaminated waste and is not considered best practice by UK regulators.
5. Post treatment, the key is to dry the wood as soon as possible after treatment and keep it dry in storage –
 - a. Wood must be stickered, well ventilated and not close stacked.
 - b. If pack wraps are essential, only cover the top of the pack/stack and top few layers. Never completely enclose the pack.
 - c. Once dry, stock turnaround times must be optimised.
6. Keep all areas clean where the wood (whether treated or not) is stored.
7. Protect the timber against avoidable dust accumulation.

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If you have any comments the guidance in this document or would like advice about any aspect of preservative pre-treated wood please contact:

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