

## Park Home Case Study Number One

### Plywood as a Substrate and the Effects of Fungal and Algal Growth

The wood used in the manufacture of plywood may be sourced from many parts of the world. Therefore the levels of materials and chemicals to be found within the finally engineered plywood will vary markedly from one geographical region to the next and given the right conditions, may well form the basis for mould to breed.

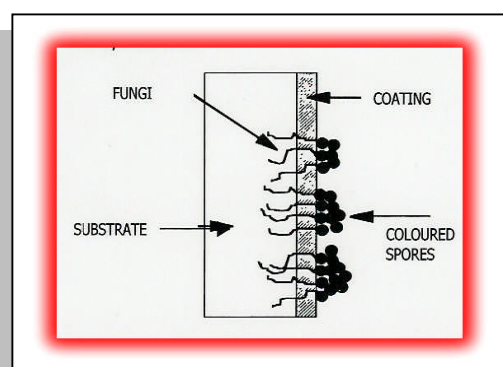
Technically moulds are part of the fungi family, a group of organisms made up from a very diverse range of species, the largest of which will be recognised as the familiar mushroom down to the tiniest moulds, the spores of which may be less than 2 micrometers (microns) in size and therefore not visible to the naked eye.

#### Can mould grow on manufactured wood such as plywood?

It is unlikely that mould fungi will be found inside a living tree as the trees natural defence mechanism, in the form of its surrounding bark, will act as a barrier against fungal attack. However once the wood is harvested such elements of protection are removed thus exposing the wood to any spores present within the air leaving them free to settle on the exposed wood and develop accordingly.

#### What causes Mould to develop?

Mould, or as it is also known micro fungi, will lay dormant until conditions are compatible for growth.



These will include a food base (as identified above), the right temperature, moisture and air conditions. Under such combined conditions micro fungi will release spores to form new fungi thus enabling the organism to expand unchecked.

The discolouration associated with spore development is brought about by the natural pigmentation of the spore itself, which depending on the type may be black, blue, orange, yellow and green.

#### Can Mould be eradicated?

It is generally recognised that the majority of mould staining to be found on a finished coated Park Home will have been caused by fungal growth emanating from the plywood structure that has been over-coated.

In the example shown the plywood panel on the left has been affected however the panel on the right is clear of any mould manifestation.



When approached to consider this matter **Everlac** (GB) Ltd took the view that prevention is better than cure.

In so doing **Everlac** (GB) Ltd initiated an independent test programme through Schülke & Mayr to evaluate the characteristics and behaviour patterns of a wide range of the more commonly found mould spores, for example; Cladosporium, Aspergillus and Penicillium.



### Finding the solution

Following extensive testing it became clear that risk of mould manifestation of this type can be significantly reduced given that a suitable barrier is placed on the surface of the plywood prior to the application of the decorative coating finish.

It was further recognised that for this to be achieved such a barrier or coating must be able to continue to combat the growth of fungal spores long after the decorative finished coat has been applied and the Park Home sited.

The results gathered from this test programme has culminated in the development of **Eversan Sanitising Wash** a water based solution designed to control the growth of fungi and algae on plywood as well as other woods, masonry and other construction materials and coatings.



**Eversan Sanitising Wash** now forms the important first stage in the **Everlac Everflex** and **Evercoat** System process



**Eversan Sanitising Wash** applied by nylon roller

**Eversan Sanitising Wash** is a clear or white water based liquid designed to soak into the substrate

For further data on **Eversan Sanitising Wash** and application procedure please refer to the Technical Data Section