



Fungal Decay and Insurance Claims

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Introduction

The purpose of this brief paper is to provide some insight into the occasionally vexed issues of fungal decay of timber encountered in the context of dealing with insurance claims.

It is perhaps unnecessary to dwell too long on the technical issues surrounding fungal infestation as there is a wealth of material available to the reader in print or on the internet. However the terms 'wet' and 'dry' rot are usually used to describe an infestation by fungal spores, of which there are two common varieties in the UK. Incidentally, the terms wet and dry are perhaps a misnomer as both require some element of moisture or dampness in order for the fungal attack to manifest itself. Of the two, dry rot presents the greater concern due its ability to spread.

Also, it is usually the case that both types of infestation occur over a period of time and usually due to the intervention of some other agency including a source of nutrient (timber), dampness combined with inadequate ventilation and the required ambient temperature. Given the right conditions the spores will be able to germinate.

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The very nature of fungal investigation presents some immediate concerns when in consideration of policy coverage. It is therefore the case that few claims will ultimately succeed.

Dry rot

In fact dry rot generally describes the wood destroying fungus *Serpula Lacrymans* and is sometimes referred to as 'brown rot' although some wet rots are also identified as 'brown rot' and it is important that correct identification is obtained. It is by far the more invasive, destructive and harder to eradicate than other types of infestation. It can occur without an apparent source of moisture although some moisture will be required in order for the spores to initially germinate. The fungus attacks by breaking down the cellular structure of the timber as a source of food, leaving it brown or crumbly in appearance. Eventually the timber will reduce to powder. Therefore, any attack of dry rot can significantly affect the structural integrity of the timbers within the building, sometimes with catastrophic consequences, possibly including collapse.





The spores are often naturally present in the air but these require the right combination of conditions to develop, including a timber medium as a food source, moisture and temperature.

There are four main stages of the dry rot life-cycle these being:-

- Spores - these can initially resemble a fine orange dust on the surface of the timber.
- Hyphae - If the spores are provided with sufficient moisture they will begin to grow into fine white strands known as the hyphae. The hyphae will extend in their search for food and have the ability to transmit water and nutrients from their original food source.
- Mycelium – if the hyphae germinate they will eventually form a large mass known as the mycelium. The growth may extend behind plaster and other materials making it very hard to detect. Indeed, it may take some time before there is any external evidence of the fungus.
- Fruiting body – eventually the mycelium will become a fruiting body which then has the potential to pump new spores out into the surrounding air.

Critically, a moisture content of greater than 28-30% will be required. However, once active, the fungi will need a moisture content of above 20% in order to sustain. Paradoxically, the dry rot fungus has the ability to generate and transmit moisture although this will, in turn, be taken from another source e.g. absorbed from the atmosphere.

Another important factor is the ability of the fungi to spread through wood and other cellulose materials; however the fungi can also grow on other materials such as brickwork and plaster extending several metres and even between properties.

Whilst the fungus will derive no nourishment from such other materials it will be sustained by nutrients being transmitted through the hyphae being drawn from the original food source. However, the extending growth will not ultimately be sustained if the original food source is removed before it reaches another timber source.

Common indications of dry rot are:-

- Fine & fluffy white mycelium spreading across the wood.
- Mushroom-like fruiting body often orange in colour and rust coloured in the centre
- Red dust from spreading spores, often found around fruiting bodies
- Splitting and cracking of timber into small cubes





- Shrinking of the timber
- Dry, brittle, crumbly timber
- Darkening of the timber

Wet rot

Wet rot is the name given to a variety of fungi, the most common being *Coniophora Puteana* often known as 'cellar fungus'. Typically wet rot will be found in cellars, roofs, timber windows and in particular where timbers intersect masonry. The effects are however more localised and will usually be confined to an area of dampness but can spread to other mediums such as plasterwork, wallpaper and carpets. The life-cycle is much the same as dry rot previously explained. The consequences, whilst unpleasant, are far less invasive than dry rot.





Wet rot manifests itself in various ways occasionally confused with dry rot and can, in some instances, exhibit a similar appearance. The most common signs include:-

- Darkened timber – darker than surrounding timber
- Soft and spongy timber perhaps fibrous in appearance
- Cracked appearance that may crumble to touch when dry
- Localised fungus growth
- Shrinkage
- A damp, musty smell (conversely, dry rot will not usually have a significant odour)

It is important that the identification of timbers subject to wet and dry rot are not confused due to the similarity in appearance between the cracking of affected timbers. Advice should be from a suitably qualified Building Surveyor or Environmental Specialist.

Common causes

Whilst the fungal spores are naturally occurring it is usually the case that there will need to have been an intervening agency and the required atmospheric conditions for the fungal attack to take effect.

Typical causes can be but are not limited to:-

- Moisture from leaking gutters.
- Moisture from defective flashings or roof coverings.
- Poor ventilation and ambient temperature creating suitable conditions for the spores to take hold.
- Rising damp due lack of damp-proof course or breach of damp proof course.
- Penetrating damp e.g. through cellar walls or solid walls without cavities.
- Membranes added to slated roofs effectively preventing ventilation
- Blocked up air bricks and lack of ventilation to floor voids
- Water leak from pipes





Remedial measures

It is important that the full extent of the outbreak is determined as quickly as possible. Dry rot can spread relatively quickly and extensively throughout a building and present the greater problem, hence the focus of the narrative has been on this issue. It is possible that intrusive investigations are required such as the need for floor boards to be taken up to inspect joists. If the affected timber is embedded in the wall then a small area of surrounding plaster may need to be removed to check behind. If it is not carried out correctly and the infestation eradicated there is a risk of re-occurrence. The integrity of timber can be checked by probing with a sharp object.

As already explained, fungal attack on timbers can only exist if the required conditions prevail and therefore initial strategy in dealing with any infestation should entail some attempt at controlling the environment, thereby to creating one unsuitable for the fungi to survive. Needless to say, the source of the moisture should be addressed as early as possible, whether a leaking pipe or otherwise.

The dry rot infestation cannot sustain at less than 20% moisture content in the timber and research¹ has shown that the infestation will die after prolonged exposure to temperatures above 20°C. Therefore controlling the environment with heat and ventilation will, in most cases, eradicate the infestation. Modern drying techniques used following flood or water damage will usually accomplish this.

In most cases rotten timber will need to be cut out to 300-500mm beyond the infestation and spliced or replaced with new timber. This in turn may require some propping where structural timbers are involved and, in these cases, advice from a consulting engineer may be necessary.

It is important to remember that fungal infestation can progress, often unseen, behind plaster work, skirtings and through brickwork joints and further investigation may be required to fully eradicate it, including the removal of such materials. However, as mentioned previously, dry rot needs a source of cellulose as food in order to exist and extends in a search for food with which to sustain itself. Without a food source it will ultimately die out.

Attention will then be given to protecting the remaining timbers, usually with brushable proprietary solutions or fogging. There can, from an insurance perspective, be a tendency to consider these costs as preventative and therefore not covered. However if policy liability is deemed accepted, treatment

¹ BRE Digest 299 Dry rot: its recognition and control





of timbers while exposed is often in relative terms cheap and, if controlled, good and acceptable practice.

In addition, where the timber has been left largely intact there are epoxy products available that fill-in the channels of the damaged wood, killing the rot and also restoring structural integrity. However unnecessary use of pesticides specified by some timber treatment companies should be scrutinised for their effectiveness and in some cases resisted.

Whilst the above narrative has dwelt on the problems associated with dry rot, wet rot is usually confined to very wet areas and, being less invasive, can often be treated locally. In the worst cases the timber will need to be cut out and new timber spliced in.

Needless to say any remedial works can prove to be very expensive, particularly where structural timbers are involved, together with disturbance to other elements of the building and finishes. Both wet and dry rot can travel behind plaster and skirtings and some removal of building elements may be required to eradicate the infestation: for example, timber window frames affected by dry rot can be particularly difficult to deal with due to their exposure to dampness.

Policy considerations

The practitioner of insurance will realise the immediate problem in that there is no specific cover available for wet or dry rot (or indeed fungal decay) in the 'perils' section contained within most commercial or domestic policies. Whilst most policyholders will have additional cover for damage on an all risks or accidental damage basis this will be subject to exclusions.

On a commercial policy this will typically read as follows:-

Excluding damage caused by

i) corrosion, rust, **wet or dry rot**, shrinkage, evaporation, loss of weight, dampness, dryness, scratching, vermin or insects

ii) inherent vice, latent defect, **gradual deterioration**, wear and tear, its own faulty or defective design or materials....





Domestic wordings are a little more straightforward but similar in import, typically including the following exclusion:

We will not pay for:

*Any loss or damage caused by wear and tear, depreciation, the effects of light or the atmosphere, **mould, dry or wet rot or fungus***

Consequently, a claim for fungal decay will usually be defeated by the operation of the exclusion.

However, it is possible that a situation might arise where the policyholder asserts that the fungal attack is due to some other proximate causation, such as a burst pipe which has remained undiscovered for a period of time. In this instance operation of the accepted peril might allow consideration of the resulting fungal decay. Such instances will, however, demand careful investigation and often referral to insurers.

On occasions policyholders and their advisers/contractors will advocate that further expensive chemical treatments are necessary. However, insurers may be reluctant to deal with the cost of such preventative measures e.g. following an incident particularly where drying out has been carried out adequately and there has been no evidence of infestation. This will always need to be considered on its merits on a claim by claim basis.

Damp penetration due to other causes such as leaking gutters or rising damp will not merit consideration as the policyholder is obliged to maintain the property in good order whether by express or implied term.

It is occasionally the case that fungal decay is wrongly attributed by the policyholder to an insured incident i.e. the discovery of mould growth immediately following a fire. In these instances it must be borne in mind that any substantial infestation will have occurred over a period of time and not overnight. Often building defects lie undiscovered by the policyholder only to be discovered when voids are opened up.

Deterioration of the building due to the policyholder's failure to mitigate the loss which then results in fungal infestation would not be a matter for insurer's consideration unless there were extenuating circumstances, for instance following an undiscovered leak.

An area of concern might be where remedial work has been carried out following fire or flood and the timbers have not been adequately dried or treated. The residual moisture might give rise to





infestation. This may only become apparent some months after the original loss. Most insurers would be persuaded to reopen their original claim file and deal with the additional costs in a sympathetic manner. However there may be grounds for a claim against the original builder carrying out the repairs if the work was deficient.

Liability for spreading infestation

In situations where the policyholder has an attack of fungal infestation and this is left unchecked this may give rise to liability in nuisance in the event that the infestation then spreads to an adjoining property. In particular, dry rot has the potential to pass through mortar joints in brickwork in the hyphae stage where it exists as fine white strands.

Practical aspects in the investigation of claims

Faced with a potential claim, whether directly in respect of fungal decay or in relation to some other cause, it is important to ascertain the facts including the history of the problem:-

- Date of discovery of damage?
- Date of ownership of the property?
- Was a property survey undertaken at the time of purchase?
- Is there evidence of a water leak from pipework or fixed installation (i.e. the operation of an insured peril)? Has the policyholder recently had work undertaken to fix a leak?
- Is there any evidence of leaking or poorly maintained roof, gutters or rainwater pipes?
- Is there evidence of rising damp in the property?
- Is there evidence of inadequate ventilation (e.g. in cellars and roof-spaces)?
- Are there any issues with the adjoining property such as defective flashings?
- Has the property been subject to drying as a result of an incident (e.g. flood) and a drying certificate issued?





Finally be cautious of the advices provided by damp and dry rot companies. They often have a commercial interest in undertaking the work and experience has shown that their recommendations reflect this. If in any doubt seek the independent advice of a rot consultant or specialist surveyor.

Further reading

BRE: Digest 299 Dry rot: its recognition and control

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