## **Rising Damp**

**Dampness** tends to cause secondary damage to a building. The unwanted moisture enables the growth of various fungi in wood, causing rot or mould health issues and may eventually lead to sick building syndrome. Plaster and paint deteriorate and wallpaper loosens. Stains, from the water, salts and from mould, mar surfaces. The highest airborne mould concentrations are found in buildings where significant mould infestation has occurred, usually as a result of severe water intrusion or flood damage. Moulds can grow on almost any surface and occurs where there is a lot of moisture from structural problems such as leaky roofs or high humidity levels. Airborne mould concentrations have the potential to be inhaled and cause serious health effects in humans.

**Externally**, mortar may crumble and salt stains may appear on the walls. Steel and iron fasteners rust. It may also cause a poor indoor air quality and respiratory illness in occupants. In extreme cases, mortar or plaster may fall away from the affected wall/s.

## Wet Rot/Dry Rot

**Wet rot** is a term which covers most fungi that damage wood. The term covers so called brown and white rots.

**Dry rot** refers to a specific brown rot fungi. Like wet rot, it can only flourish in damp timbers but is less likely to be found in very wet timbers. Dry rot is particularly dangerous as it can tolerate the alkaline conditions found in older masonry, plaster and pointing. It has unusually thick strands which conduct moisture and nutrient, feeding the growth which can lead to the formation of fruit-bodies.



Wet Rot

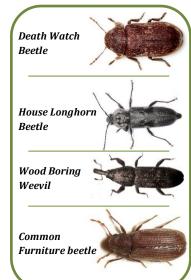


The True Dry Rot

## **Wood boring insects**

**Signs** of woodworm usually consist of holes in the wooden item, with live infestations showing powder around the holes. The sizes of the holes vary, but are typically 1mm to 1.5mm in diameter for the most common household species. Adult beetles which emerged from the wood may also be found in the summer months.

Typically the adult beetles lay eggs on, or just under the surface of, a wooden item. The resulting grubs then feed on the wooden item causing both structural and cosmetic damage, before pupating and hatching as beetles which then breed, lay eggs, and repeat the process causing further damage.



## **Cavity Wall Ties**

Over recent years it has become apparent that a high number of properties built before 1981 are suffering from premature wall tie corrosion. This leads to lamination where they will expand to several times their original size. This expansion will cause structural instability, by lifting the Mortar joints where they lay. Visual evidence of corrosion can be seen by horizontal and diagonal step cracking to external wall surfaces. If corrosion is severe it will lead to distortion and bulging . in some cases external walls have collapsed during gales, research has also found that a high percentage of properties inspected had an inadequate number of wall ties especially around openings, i.e. windows and doors.



Old Wall Tie



Screw Wall Tie