EVERDRY WATERPROOFING

Wood Rot – What is it?

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Wood rot in nature is a natural process which helps to maintain the forest ecosystem by turning dead or fallen trees and logs into rich soil. But when wood rot makes its way inside, it's anything but healthy for your home, with the ability to cause major structural damage. Just what is this nemesis, how do you diagnose it and what can you do about it once you've found it in your home?

In order to understand wood rot in your home, it's important to understand the distinction between the two major types of wood rot often encountered. There is "dry rot", so called because it requires less moisture than other types, and there is "wet rot" which requires higher moisture content. The distinctions between two are explained below.

Wood rot is a fungus that is spread in nature through spores, much like mold. These spores are thus already present in the wood and if the conditions are right, they will begin to grow. Live trees are normally not affected by these spores, unless there is a tremendous amount of moisture present. When the tree is harvested and the wood comes indoors as studs, flooring and beams in your home, these spores can come with it. Exposed to enough moisture, these spores have all the required conditions for like (food source, air, moisture, temperature) and they begin to grow.

DRY ROT

Dry rot requires roughly 20% moisture in the wood to begin growing, and although its name would suggest that it can grow in completely dry wood, it does require moisture to propagate and grow. When poor or inadequate ventilation and high levels of moisture and humidity exist in a home, dry rot can exist. Here are some signs of dry rot in the lumber in your home:

- Damaged or decaying wood
- Damp or musty smell
- Gray or white spots and "strands" on the lumber
- Deep cracks in the grain of the wood

- High air particle counts
- Growths that can resemble mushrooms

Dry rot targets the cellulose or the lignin in the structure of the wood. The cellulose is a carbohydrate that is found in all plants, and is the structural component of wood cell walls, while the lignin is an organic substance which binds the wood cells together. Dry rot tends to leave wood "hard" to the touch, while wet rot softens the wood making it easy to penetrate with a screwdriver.

WET ROT

As the name implies, "wet rot" requires more moisture to grow and survive than "dry rot". Moisture levels in or on the lumber around 50% are normally required for wet rot to propagate. Generally speaking, wet rot is a sign of water leaking directly onto the lumber, like plumbing leaks, gutter leaks and leaking foundations. It is possible, however for wet rot to exist in situations where there is high humidity causing condensation on the timber.

Wet rot targets the cellulose in the wood, breaking down the cellulose and leaving behind a "honeycomb" look or appearance with "soft" spots in the timber.

Here are a few signs of wet rot in your home:

- Weakened lumber
- Damp or musty smell
- "Spongy" or "soft" lumber
- Cracking lumber
- Discolored or misshaped or distorted timber
- High air particle counts
- Black, brown or white fungal growths

WHAT DO I DO IF I HAVE WOOD ROT?

Both dry rot and wet rot can be devastating to your home. As both types of rot expand, they destroy the structure of the wood, allowing more room for moisture to permeate the wood – causing further growth and decay. If find your floors to be "spongy" or "bouncy", you likely have a wood rot problem. Insects, such as termites, can be also drawn to the scent that wood rot gives off, further expanding the problem.

In order to stop the growth of wood rot in your basement, you first need to eliminate the moisture. There are two ways to do this:

- Stop the moisture and water from coming into the basement by plugging obvious cracks and leaks and having a professional waterproofing inspection and analysis.
- Increase the ventilation in your basement to help dry the moisture in the air. Be careful with dehumidifiers if you have wood rot. While they lower the humidity levels, the fan in the dehumidifier can help to spread the rot spores around the basement, into the furnace fan and throughout the home.

If you suspect any type of wood rot in your home – don't wait! Depending on the amount of damage, you may also need to have the affected wood replaced or have supports installed to help support the structure of the damaged wood. **Click here for more information on wood rot in your home.**