

4. HEALTHY



Healthy for You

The construction materials of an Ambionse wall are all non-toxic and because of the inherent durability, there's no need for chemical preservative treatment. One key benefit of the inert feature is that there is no off-gassing. This will become more and more important as we learn how the chemicals and toxins in our environment impact our health.

The continuous insulation reduces wall cold spots (that can occur in other walls at gaps in the insulation) and potential condensation buildup. By eliminating the conditions conducive to mould growth, the health problems associated with mould do not feature in an Ambionse home. Ambionse allows you to create a surprisingly airtight structure that minimises the ingress of dust and pollen - great for asthma sufferers.

Even in the event of a fire Ambionse is less toxic than other construction materials. The insulating material used in the Ambionse blocks is formulated so that it does not burn by itself. The Plastics Institute of NZ states that tests carried out in accordance with European Standard DIN 53436 show that the levels of dangerous gases are considerably less than those occurring when burning timber.

Healthy for the Environment

More and more people are turning to a sustainable way of building. This "Green Building" doesn't have to be an "all or nothing" endeavour. If you use materials that have little impact on the environment that is a good start. If you use less energy to run your home (e.g. heating), that also helps. We don't have to go to the extreme to make a difference because every little bit counts.

Concrete is a material that has little impact on the environment. In 1994 Canada's national wood products research institute, Forintek, conducted an environmental impact study on the extraction of resources needed for residential construction¹. This report says, "concrete has a lower environmental impact than that of other construction materials ..." and "... resource depletion is not an issue for concrete and the impacts associated with extraction are greater for wood. "

Just like people don't buy drills because they want a drill, they want a hole, remember that people do not buy homes because they offer green features. They buy homes that offer a safe, secure, healthy, resource-efficient, and aesthetically pleasing environment.

¹ Assessing the Relative Ecological Carrying Capacity Impacts of Resource Extraction, by Wayne B. Trusty and Associates Ltd. in association with Environmental Policy Research, submitted to Forintek Canada Corp. for its Sustainable Materials Project, August 1994.

Reduced Energy Consumption

The embodied energy (energy consumed in the production) of concrete and Ambionse block is low. While some claim that there is a lot of energy to produce cement, there is only a very small proportion of cement in concrete with a lot of low energy filler.

It is the life-cycle energy use that is more critical, as studies show that only 1% of the energy used in a buildings life is used to manufacture the materials and build the home. The occupants of a house use the other 99% of the life cycle energy use (in heating and cooling).

Less energy is required to heat and cool an Ambionse home, compared to that required by a traditional timber framed house. With a lot of homes heated by gas or wood fires, this can reduce the amount of greenhouse gas emissions, as well as the smog (consider Christchurch in winter). Also with the reduction in heating required, the demand for electricity will also be reduced. Just imagine how high the hydro-lake levels would be next winter if New Zealand homes had reduced heating requirements.

