

Are homes built from cannabis our homes of the future?

Following the Constitutional Court's recent ruling on the private, recreational use of cannabis, renewed interest has sparked into the other uses of the Cannabis sativa plant. One increasingly popular option is the use of hemp in the construction industry.



Mike Greeff, CEO of Greeff Christie's International Real Estate, says using hemp in the construction industry is a step in the right direction. "Hemp is a natural product that is easily grown and, aside from being very environmentally friendly, is exceedingly versatile in its applications. From oils to clothing, hemp has the potential to be a game-changer in the local manufacturing industry and can only increase in popularity in the years to come."

The main ways in which hemp is used in construction are to make 'hempcrete' (the popular term for a hemp-lime composite building material) and to provide fibres for quilt insulation. It consists of hemp, lime and water and is an environmentally friendly alternative to concrete. Not only is hempcrete waterproof, fireproof and 100% recyclable, it can also be repurposed as a fertiliser once demolished.

Hemp regulates air flow

Hemp insulation, which can be used in industrial and commercial situations performs better than most modern insulators and has an exceptional lifespan. Hemp insulation allows greater breathability for humidity and moisture to escape. It is more resistant to mould, mildew, rot, or other moisture-related problems that may develop over time. The secret to its longevity is that the stem of the hemp plant is highly durable and comprises strong cellulose, a carbohydrate found in the plant's cell wall. This feature creates the ability to go from wet to dry and vice versa (almost indefinitely) without degrading. As an insulation, hemp has excellent thermoregulation abilities through the existence of small air pockets, that is naturally formed between the fibres. This would result in sustained savings on your heating and cooling costs.



Why the world is scrambling to grow hemp

Amé Verhoef 3 Jan 2018



Hempcrete is cost effective

Hempcrete drastically reduces cost, offers better tensile strength, durability and although it is not available commercially, it is available internationally. Hemp, unlike concrete, isn't brittle and as such does not require movement joints incorporated into the building process. Hemp crop absorbs carbon dioxide gas as it grows, retaining the carbon and releasing oxygen. According to Askscience, 165kg of carbon can be theoretically absorbed and locked up by 1m³ of hempcrete wall over many decades.



Hempcrete is allergy friendly and can be used for interiors

Hemp construction materials are appropriate for people suffering from allergies and contain antibacterial properties. This means new homes that are constructed using hemp as the base construction material will not have that 'new house' smell which often affects individuals that are prone to allergies and respiratory ailments.

The use of hemp products negates the use of glues, formaldehyde and sealants that hold together, preserve and finish most modern homes. Unlike conventional wood, in the event of a fire, hemp does not burn in flames but merely kindles. This ensures the fire-retardant properties of the construction material.

"Hemp is a revolutionary product and with its versatility, cost-effectiveness and low environmental impact, it has the potential to change the way we look at home construction. Hemp may very well become the material of choice for the discerning home builder or developer," concludes Greeff.

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