



## The use of hemp in construction

One of the most innovative uses of hemp fiber at present is in construction, due to its high strength, flexibility, thermal and insulation power. It is utilized as a wood substitute in the production of insulating panels and planks or as the main component of compact bricks for outdoor and indoor walls and roofs, replacing conventional bricks.

Houses built with hemp bricks and planks are waterproof, resistant and insulated, providing energy saving and better soundproofing. Furthermore, its use as renewable material allows retaining environmental pollution.

The cultivation of hemp highly benefits agriculture from an ecological and environmental point of view. It can be grown in almost any soil which is not too compact or arid. During cultivation, it does not require pesticides or herbicides and it purifies air by reducing CO2 emissions. After cultivation, it improves soil quality and performance as it returns to the field about 40% of the minerals extracted, re-generating and enriching the soil.

The main hemp producing countries are China (25% of world production), Russia, Canada and France. The annual average crop of hemp fiber in the world is around 2,350,000 sqm. Hemp fibers are used in the textile sector, car industry and in the production of seeds and oils, or in green fuels.

Hemp as a construction material is an organic product without any additives injurious to human health. Its use avoids materials harmful to the environment and the waste produced is easily recyclable.

### Hemp blocks or bricks

The blocks are made of hemp vegetable fibers, natural lime and earth. These components are mixed, pressed and air-dried, so the energy consumption in manufacturing is very low. The benefits of these natural bricks are their insulating power, which makes houses have the same characteristics as conventional construction. They are resistant to charges and fire, used to make buildings of various heights and also contributing to environmental protection.

### Hemp planks

Hemp planks are a clean and recyclable product, used for insulation of roofs, walls and floors and replacing the conventional wooden planks. Due to its texture, it can be easily adapted to any type of construction and it is also easy to assemble. Planks ensure automatic regulation of humidity without loss of heat, facilitating energy-saving housing. Unlike wood, hemp does not contain albumin and therefore removes the risk of being attacked by parasites, as well as breaking down.

### Hemp Highlights

- One hemp hectare can produce as much useful fiber as four tree or two cotton ones.
- It has the longest, soft and durable fiber ever known.
- Its fabric is more soft, insulating, absorbent, cool and durable than cotton.
- Hemp paper is stronger and more durable than others and does not require acid or chlorine.
- It can be recycled up to 7 times.
- The hemp agglomerate resists double than wooden one and holds nails better.
- The hemp stalk is free of albumin and materials made of it are resistant to parasites.
- Hemp as a construction material is an organic product without any additives harmful to health.



To know more

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