Hempy People

Sustainable Building Materials

INDUSTRIAL HEMP

Hemp
shives/hurds
20 mm

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Product class:	Decorticated natural hemp shives / hurds
Application:	Construction, energy, paper, packaging
Ingredients:	98% Shives / Hurds from Cannabis Sativa L.
Moisture content:	< 5%

TECHNICAL DATA

Shive length:	15–20 mm
Shive width:	5–10 mm
Ash / dust:	2 %
Cellulose:	45–50 %
Hemicellulose:	20–30%
Lignin:	18–23 %
Pectin:	4–5 %
Extractives:	– %
pH levels	6.0–7.5

REGULATORY INFORMATION

Industrial hemp shive is according to Regulation (EC) No 1907/2006 (REACH) of the European Parliament and of the Council Annex IV among the exemptions from the obligation to register. Safety data sheet according to article 31 and chemical safety report according to article 14 in this regulation is therefore not required. This data sheet has been made according to Appendix II in the regulation.

ECOLOGICAL INFORMATION

Toxicity:	No adverse effects
Persistence and degradability:	The product is biodegradable
Disposal considerations:	The product is intended for biological waste
Moisture level:	< 5%

PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Beige / Light Grey
Odor:	Odorless
Self-inflammability:	200 °C to 400 °C (392 °F to 752 °F)
Solubility:	Insoluble in water

PACKING INFORMATION

Packing style:	Pressed into bales of 12,00–15,00 kg, wrapped into polyethylene bags and secured with foil on EU Pallet (1200x800 mm), OR Big Bags (100x100x200 cm, 2 m)
Bales on pallet:	24 bales on EU Pallet / 288–300 kg on 1 EU Pallet
For delivery by:	Lorry, rail, vessel
Protective elements:	Polyethylene foil, wires

PRICE ESTIMATE

Name:	Unit/€	Unit/Kg	Quantity	Total/Kg	Total/€
Hemp Shives	85.76	264	38	10032	3258,88

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Hemp binder
hemp/lime binder

CHARACTERISTICS

Hemp/lime binder is a mixture of limestone with no added sand, cement or toxic substances. This exclusive product is created 100% from natural components. Due to its special formulation we get an extremely light and energy-efficient insulation material that instantly hardens after application. This development allows any team to dismantle and move the formwork immediately after installing the mortar between the frame elements. This results in energy and cost efficiency for customers' benefit.

PACKAGING

Packaging:	paper valve bag
Weight:	22 kg
Composition:	Slaked lime, mineral mixture
Consumption:	7 bags/1 m^3 of material
Transportation:	pallets of 45 bags

APPLICATION AREAS

The walls
Floor
Roofing
Attic
Partitions

PRICE ESTIMATE

Name:	Unit/€	Unit/Kg	Quantity	Total/Kg	Total/€
Hemp/Lime Binder	12.1	22	45	990	11979

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Hemp insulation material

CHARACTERISTICS

Hemp insulation retains heat well and does not emit harmful substances. Insulation is used for walls, production of sandwich panels, frame houses, when repairing roofs, attics, walls, external and internal partitions.
Hemp is a well-known natural antiseptic. The use of hemp as an insulation material does not only create a favorable microclimate in the house, but also allows you to protect the structure of the house from rotting and the appearance of mold, fungus and insects.

COMPOSITION

80% hemp fiber, 20% polyester fiber.

WHAT IS HEMP INSULATION?

Hemp insulation is a natural insulation made from hemp fibers. It is environmentally friendly and biodegradable, making it an excellent choice for those who prefer environmentally friendly materials and sustainability.

WHAT ARE THE ADVANTAGES OF HEMP INSULATION COMPARED TO OTHER TYPES OF INSULATION?

One of the main advantages of hemp insulation is its environmental friendliness. It does not contain harmful chemicals that are usually found in synthetic insulation. In addition, hemp insulation is biodegradable.

THERMAL INSULATION CAPABILITIES OF HEMP INSULATION IN CONSTRUCTION

Hemp insulation for construction is an excellent choice for thermal insulation of buildings and structures. It has excellent thermal insulation properties that provide a comfortable climate inside the building. Hemp insulation has a high specific heat capacity, which allows one to store heat inside the building for a long time. It also has a low coefficient of thermal conductivity, which allows you to reduce heating costs and increase the effectiveness of insulation. In addition, hemp insulation is ecological and safe for one's health, as it does not contain harmful substances and radiation. It is also hypoallergenic and perfect soundproofing solution.

PRICE ESTIMATE

Density (g/m²)	500	800	1000
Width (m)	0.6	0.6	0.6
Length (mp/area m²)	10/6	10/6	10/6
Roll weight	3,2	5	6,2
Cost of the roll	14,3	19	24

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Hemp
mat for the floor

CHARACTERISTICS

Hemp mat solution for the floor under linoleum, laminate (in pressed form). They are used for filling surface irregularities, heat insulation and sound insulation with canvas.

COMPOSITION

80% hemp fiber, 20% polyester fiber.

- **Hypoallergenic**
- **Hemp is the strongest among natural fibers**
- **Natural antiseptic**
- **Bioresistant**
- **Natural moisture regulation**
- **Resistant to decay**
- **Does not emit toxic substances**

Hemp mat for a laminated floor, linoleum is one of the options for underlayment used under laminate coverings in the interior decoration of premises. It is made from natural hemp fibers and has several advantages.

FEATURES OF THE HEMP SUBSTRATE

Environmental friendliness: Hemp underlay is a natural and environmentally friendly material, which makes it attractive to those who pay attention to the ecological aspect of construction. It is made from the hemp stem, which is biodegradable and does not contain harmful chemicals.

Thermal insulation: The hemp substrate has good thermal insulation properties. It helps to keep heat in the room, preventing its loss through the floor. This can positively affect the energy efficiency of the building and reduce heating costs.

Sound insulation: Hemp fibers have the ability to absorb sound. A hemp underlay can help reduce the noise of sound transmission between floors of a room. It absorbs and distributes sound waves, creating a more comfortable acoustic environment.

Humidity control: The hemp substrate has a high moisture absorption capacity. It can absorb moisture and evaporate it, helping to maintain an optimal humidity level in the room. This can be useful in humid or climatically variable regions.

Usage: The hemp substrate is easy to use. It is usually sold in the form of rolls or plates and is easily attached to the floor before laying the laminate. It also helps level the surface of the floor, reducing unevenness.

PRICE ESTIMATE	**16,5 EUR / roll (10 m²)**

Inter-crown insulation made of hemp

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CHARACTERISTICS

Inter-crown insulation made of hemp for filling irregularities, thermal insulation. It can be used in the production of sandwich panels, frame houses, in the repair and reconstruction of residential and industrial buildings and structures - roofs, attics, walls, external and internal partitions.

COMPOSITION

100% hemp fiber

Hypoallergenic

Hemp is the strongest among natural fibers

Natural antiseptic

Bioresistant

Natural moisture regulation

Resistant to decay

Does not emit toxic substances

DENSITY

700 g/m²

Inter-crown insulation made of hemp is a material used to insulate the inter-crown space in the walls of buildings. It is made from the natural fibers of the hemp stem and has several properties that make it an attractive option in construction.

Inter-crown insulation made of hemp is an ecological and effective option for insulating the walls of buildings. It helps ensure energy efficiency, comfort and a healthy microclimatic environment inside the building.

IMPORTANT ASPECTS OF INTER-CORONAL INSULATION MADE OF HEMP

Environmental friendliness: Inter-crown insulation made of hemp is an environmentally friendly material. It is made from the hemp stem, which is a renewable source and does not require the use of harmful chemicals during production. Hemp is also a biodegradable material, which allows to reduce the negative impact on the environment.

Thermal insulation: Inter-crown insulation made of hemp has a high thermal insulation capacity. It effectively keeps heat inside the building, preventing its loss through the walls. This helps reduce heating costs and improve the building's energy efficiency.

Breathable: Inter-coronal insulation made of hemp has breathable properties. It allows air and moisture to penetrate through the walls, which helps regulate humidity inside the building. This can provide a healthy microclimatic environment and prevent the formation of mold.

Ease of installation: Inter-crown insulation made of hemp is easy to use. It is usually sold in rolls or slabs, which are easily placed between the crowns of walls during construction or renovation. It is possible to cut the insulation to the desired size and shape.

Durability: Inter-crown insulation made of hemp has high strength and durability. It retains its heat-insulating properties for a long time and does not undergo decomposition or deformation.

Region density:	700 g/m²
Width of the canvas:	100 mm, 200 mm
Length of the canvas:	25 m
Thickness of the canvas (at a pressure of 0.5 kPa):	8 mm
Weight of the roll:	1.8 kg 3.5 kg
Breaking load (MN):	2.5 N/5 cm

Tensile strength (MN):	0.5 kN/m
Elongation at break (MN):	40%
Thermal conductivity:	0.021 m²-K/W
Hygroscopicity of NP:	15%
Combustibility group:	G4
The composition:	100% hemp fiber

PRICE ESTIMATE **23.2 EUR / roll (50 MP)**

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Hemp cotton wool

CHARACTERISTICS

Hemp cotton wool. It is made using thermobonding technology by mixing 85-90% hemp fiber and 10-15% bicomponent fiber, and baking in an oven at a temperature of 200 degrees.

ADVANTAGES OF HEMP INSULATION

Effective:	perfectly retains heat, equivalent to 30-35 cm of mineral insulation.
Ecological:	does not emit harmful substances, safe for people and the environment.
Natural:	made from hemp - a natural antiseptic that protects against rot, mold and insects.
Vapor permeable:	does not create condensation, favorable for the microclimate.
Strong:	resistant to deformation and shrinkage.
Universal:	suitable for insulation of roofs, walls, attics, attics, partitions.

ADVANTAGES OF HEMP INSULATION

Weight:	(in 1 roll) 5.5-6 kg
Thermal conductivity:	0.038 W/m•K
Quantity:	1 roll-10 m^2
Dimensions width:	1 m/length 10 m/thickness 5 cm
The minimum order quantity:	1000 m^2

PRICE ESTIMATE	**2900 EUR / 1000 m^2 (100 rolls)**

Hempcrete

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Mean of compressive strength:	0,3 N/mm^2
Thermal conductivity:	0.071 W/mK
Gross dry density:	330 kg/m^3
Size of hempcrete:	40x20x12 cm
Weight per palette:	330kg/m^3
Number of bricks per m^3:	~104 bricks per m^3
Estimates:	40ft HC container ~73m^3 (when loaded without pallets)
Estimates:	20ft container ~30m^3 (when loaded without pallets)

PRICE ESTIMATE	**330 EUR/m^3**