



**von Hanf**®

# **Hemplith Building Materials**

## **Sustainable Building Materials for Climate-Friendly and Circular Construction**

Von Hanf is a leading company in the field of sustainable building materials, combining environmental friendliness with innovative solutions for modern construction. Our focus is on developing products from annually renewable raw materials like hemp, which are both ecologically and economically sustainable. With a clear commitment to climate protection and resource conservation, we are setting new standards for healthy and modern building.

# Key Features of Our Products



## CO2 Storage

Our hemp products actively help bind CO2 from the atmosphere and thus contribute to climate protection.



## Breathable

Optimally regulates moisture and effectively prevents mold formation.



## Versatile Application

From new construction to renovation - replacement for conventional building materials in all areas.

The use of hemp as a building material offers numerous advantages for builders, architects, and the environment. Hemp grows rapidly and binds large amounts of CO2 during its growth. This CO2 storage is retained even in the finished building material, making every building an active contributor to climate protection. The natural breathability of hemp fibers ensures a healthy indoor climate, automatically regulates humidity, and prevents the formation of mold and moisture damage. Our products are versatile and can replace conventional building materials in almost all application areas – from load-bearing walls and insulation to specialized applications in dry construction.

# Product Overview

## Building Materials

- Hemplith Hempstone / Hemp-lime Block
- Hemplith Mineralboard
- Hemplith Aquaboard
- Hemplith Drywallboard

## Insulation Materials

- Hemplith Flex
- Hemplith Therm

## Special Applications

- Hemplith Fill

Our comprehensive product range covers all aspects of modern construction. From solid building blocks to flexible insulation mats and specialized fillings, we offer the right solution for every construction task. All products are based on the renewable raw material hemp and combine excellent technical properties with ecological sustainability. They can completely replace conventional building materials and often offer even better properties in terms of thermal insulation, sound insulation, and moisture regulation.

# Hemplith Hempstone / Hemp-Lime Block

Hemplith Hempstone is a sustainable building material with excellent thermal and acoustic properties. It stores CO<sub>2</sub> and actively contributes to climate protection. The hemp-lime block combines the positive properties of hemp with the stability of mineral binders, creating a building material that is both ecologically and technically convincing.

## Thermal Regulation

Excellent heat storage capacity for optimal living comfort

## Breathable

Regulates moisture and prevents mold formation

## Sound-insulating

Effective noise reduction for quiet living

## Sustainable

Made from rapidly renewable raw materials

## Ingredients

- Hemp shives
- Lime
- Mineral binders

## Applications

- Interior and exterior walls
- New construction and renovation

## Replaces

Multipor, Ytong, Poroton,  
Kalksandstein

## Technical Data

**Gross density:** 340 kg/m<sup>3</sup>

**Thermal conductivity  $\lambda_D$ :** 0.071  
W/m·K

**Formats:** Standard 60x30 cm

**Thicknesses:** 7, 9, 10, 12, 15, 20,  
25, 30, 36 cm





# Hemplith Drywallboard

The Hemplith Drywall is a versatile hemp straw building board, ideal for drywall construction, roof insulation, and as a plaster base. It combines excellent insulation properties with mechanical stability.

## Properties

### Light & stable

High dimensional stability despite low bulk density → good processing, no sagging, clean screw pattern.

### Moisture and climate regulating

Absorbs and releases atmospheric moisture → rooms remain more balanced, less risk of mold.

### Healthy & emission-free

Without artificial additives, no VOC issues → ideal for sensitive interiors (residential construction, schools, offices).

### Recyclable & CO<sub>2</sub>-storing

Contains renewable raw materials and stores biogenic carbon → true eco-balance, no greenwashing.

## Applications:

- **Drywall systems**
- **Ceiling linings**
- **Furring walls & cladding**
- **Interior walls & partitions**
- **Attic conversion**

**Formats:** Standard 1200x800 mm, Large format 2400x600 mm

**Board thickness:** 18 mm, 30 mm with T&G

**Bulk density:** 300 kg/m<sup>3</sup> | **λD:** 0.057 W/m·K

## Replacement for:

OSB and plasterboard, wood fiber boards, rafter insulation panels



# Hemplith Mineralboard

The Hemplith lightweight board is a light, stable, and versatile panel specifically developed for drywall construction. It is moisture-regulating and mold-inhibiting, making it an ideal choice for new constructions and renovations. The combination of hemp fibers and mineral binders creates a panel that is both mechanically resilient and vapor-open.

## Mold-inhibiting

Actively inhibits the growth of mold and ensures healthy indoor air quality

## Vapor-open

Ensures a healthy indoor climate through natural moisture regulation

## Flame-retardant

Fire protection class B-s1, d0 for maximum safety

## Areas of Application

- Interior walls and ceilings in drywall construction
- Mold remediation
- Plaster baseboard
- Fire protection board

**Formats:** Standard 1200x600 mm

**Panel thickness:** 20 mm, 30 mm

**Raw density:** 400 kg/m<sup>3</sup> | **λD:** 0,069 W/m·K

**Replacement for:** Heraklith or wood wool boards, wood fiber boards, calcium silicate boards



# Hemplith Aquaboard

The Hemplith building board is robust and moisture-resistant. It is ideal for demanding interiors and wet rooms. With its high bulk density and stability, it offers optimal protection in areas with increased humidity.

## Properties

### Moisture-resistant & mold-resistant

For permanent use in damp areas – does not swell like wood-based materials and offers less surface for mold growth.

### Capillary-active & diffusion-open

Regulates moisture instead of trapping it – absorbs, distributes, and releases water, thus reducing structural damage.

### Mechanically robust & screw-resistant

Impact-resistant and load-bearing – can be screwed, carried, and clad normally (plaster, tiles, coatings).

### Ecological & CO<sub>2</sub>-storing

Based on renewable raw materials – stores biogenic carbon and is significantly more climate-friendly than conventional building boards.

## Application Areas

- Wet rooms: bathrooms,
- kitchens,
- Partition walls:
- Residential and commercial buildings

**Bulk density:** approx. 580 kg/m<sup>3</sup> | **λ:** 0.115 W/m·K

**Formats:** Standard 1200x800 mm

**Replaces:** Fermacell, Aquapanel

# Hemplith Flex - Flexible Insulation Mats

Flexible hemp fiber mats, ideally suited for thermal and acoustic insulation. Hemplith Flex is the perfect solution for all cavity insulations and easily adapts to irregular constructions thanks to its flexibility. The combination of hemp fibers and BICO fibers ensures optimal insulation values with easy processing.

## Flexible

Easily adapts to irregular constructions

## Thermal Insulation

Excellent heat storage

## Acoustic Insulation

High sound insulation for quiet rooms

## Ingredients

- Hemp fibers
- BICO fibers

## Application

- Cavity insulation
- Rafter insulation
- Sound insulation for partition walls

## Technical Data

**Bulk Density:** 30–40 kg/m<sup>3</sup>

**Thermal Conductivity  $\lambda_D$ :** 0.040 W/m·K

**Format:** 1100x600 mm

**Thickness:** 30-180 mm, custom sizes available upon request

## Replacement for

Mineral wool (glass and rock wool), wood wool insulation

The flexible structure of Hemplith Flex mats allows for quick and straightforward processing. They can be cut, clamped, or stuffed and completely fill cavities. This preserves the excellent insulating properties that ensure a comfortable indoor climate in both summer and winter.



# Hemplith Therm - Insulation Boards

High-performance insulation boards for thermal and acoustic applications. Hemplith Therm offers maximum insulation performance with a compact design, making it the ideal solution for all areas where high demands are placed on thermal insulation. The stable board form allows for easy processing and secure installation.

## Excellent Thermal Insulation

Optimal thermal insulation values for energy-efficient construction

## Acoustic Performance

High sound insulation for quiet and comfortable rooms

## Versatile Application

Equally suitable for walls, ceilings, and facades

## Ingredients

- Hemp fibers
- BICO fibers

## Application

- Wall and ceiling insulation
- Rafter insulation
- ETICS facade insulation

## Technical Data

**Bulk density:** 85–115 kg/m<sup>3</sup>

**Thermal conductivity  $\lambda_D$ :** 0,040 W/m·K

## Replacement for

Mineral wool, XPS, Styrofoam



# Hemplith Fill - Hemp-Lime Fill

Hemp-lime in granular form, specifically developed for dry fill, leveling fill, and cavity fillings. Hemplith Fill is the ideal solution for all applications where a loose fill material is required. The material combines excellent insulation properties with easy processing and can be flexibly used in various layer thicknesses.

## Thermal Insulation

Excellent thermal storage for optimal living comfort

## Impact Sound Insulation

High bulk density for effective sound protection

## Pollutant-Free

Sustainable and environmentally friendly without pollutants

## Ingredients

- Hemp shives
- Mineral binders

## Application:

- Dry fill for floor constructions
- Leveling fill for floors, e.g., screeds for underfloor heating
- Cavity filling for curtain walls with hemp blocks

## Technical Data

**Bulk Density:** 270-300 kg/m<sup>3</sup>

**Thermal Conductivity  $\lambda$ :** 0,068 W/m·K

## Replacement for

Expanded perlite, expanded clay, polystyrene, foamed glass gravel

The loose fill allows for complete filling of even complex cavities and uneven substrates. Hemplith Fill is particularly suitable for floor constructions where both thermal and impact sound insulation are required. The material is pressure-stable and can be easily built over.



# Contact & Locations

## Headquarters

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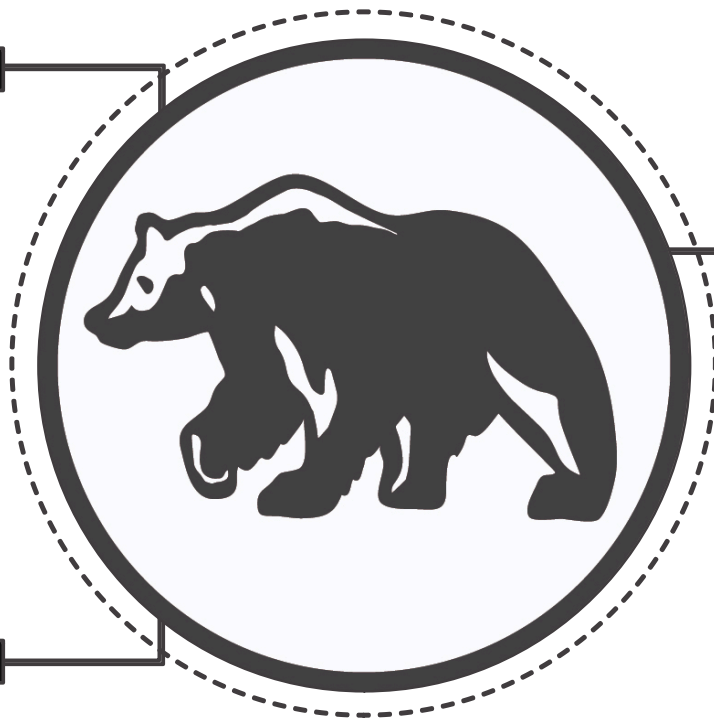
**Website:** [www.vonhanf.de](http://www.vonhanf.de)

# re:place it

**Personal Consultation**  
Individual product  
consultation directly and,  
upon request, architectural  
support

## Offer

A customized offer for  
your specific project.



## Technical Information

Provision of all relevant  
data sheets.

Our experienced team is available to answer all your questions about sustainable building materials. From initial consultation and product selection to delivery, we competently support you throughout your construction project. Visit us at our warehouse in Schenefeld or arrange an appointment at our headquarters in Itzehoe. We look forward to shaping the future of sustainable construction with you.