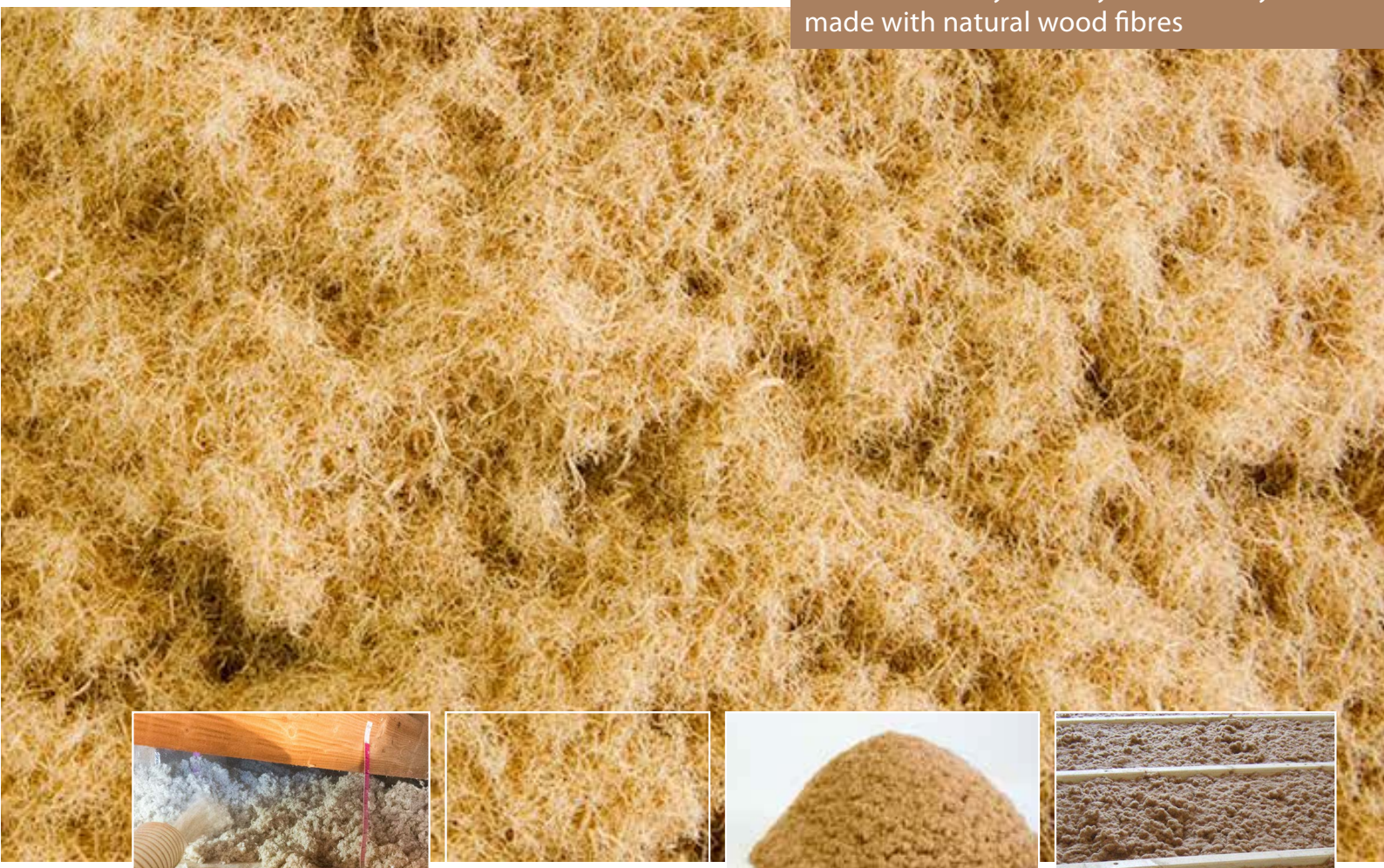
Fibertherm zell

air injected wood fiber insulation

Beton Wood

Environmentally-friendly insulation system made with natural wood fibres



| AREAS OF APPLICATION

Suitable for many on site timber frame applications.

Prefabricated wall and roof cassettes.

Ideal insulation for renovation of wall and roofs.

- joint free insulation
- very good thermal insulation and thermal storage capacity
- excellent summer heat protection
- water vapour open for a healthy internal climate
- particularly slump resistant due to interlooking wood fibres
- no additional on-site cutting
- high quality through trained installers
- sound and fire certificates available
- recyclable like wood

For more informations about the uses and the installation,
our offices are ready to answer your questions on www.fibradilegno.com

Variable in size flexible in shape

Fibertherm zell contains pure wood fibers that fill all the cavities

Each of these fibers contains in itself the advantages of natural wood: durability, stability and excellent thermal insulation properties.

To produce the insulating layer, the fibrous material is injected at high pressure into the closed compartments and adapts exactly to the limiting elements. Therefore Fibertherm zell is suitable both as an insulating material for industrial prefabrication (for example of complete wall elements) as well as for renovations.

FSC
www.fsc.org
FSC® C004750

Das Zeichen für verantwortungsvolle Waldwirtschaft

Ecological quality confirmed: the wood used for the production of Fibertherm zell comes from forests managed responsibly according to the strict FSC rules.

INSULATING MATERIAL WITH UNLIMITED POSSIBILITIES

When insulating with Fibertherm zell, it does not matter if the compartments are adjusted to the usual insulation sizes. Even installation elements in the compartments are exactly enclosed during blowing without tedious manual work. Thus, a homogeneous and joint-free filling is achieved even in the most complicated constructions. In addition to blow-in insulation, Fibertherm zell can also be used as an inflatable insulation. The inflation process is used when Fibertherm zell is inflated as an exposed thermal insulation material on horizontal, curved or moderately inclined surfaces between truss trusses or beams. Regardless of whether it is a new building, old building, timber frame, timber construction - with Fibertherm zell is particularly economical and ecological.

QUICK WORK EXECUTION, DURABLE QUALITY

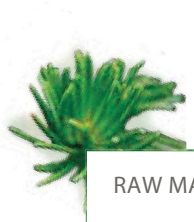
The introduction of Fibertherm zell takes place exclusively through trained partners and license companies (in accordance with the building inspectorate approval). Factory training and monitoring by MPA NRW (Materialprüfungsamt Nordrhein Westfalen) ensure planners and builders permanently high quality - in production and processing.

Fibertherm zell is delivered compressed and packed in bags. The compacted fiber material is processed in special blowing machines and blown up to the processing site via flexible pipes. The advantage: the machine as well as the insulation material can be stored outside the building, so that swift work is guaranteed even in confined spaces.

At Fibertherm zell no waste is generated. Sweepings etc. can be easily composted. Fibertherm zell is still reusable after many years if properly installed. Fibertherm zell even scores points in terms of recycling because it can be treated like natural wood. Thus, Fibertherm zell differs from many conventional insulation materials, the disposal of which must comply with strict health regulations and sometimes high costs.

A PLEASANT CLIMATE AT HOME, FOR ALL YEAR

Fibertherm zell is sorbent (moisture-buffering) and permeable (permeable to water vapor). Thus, the insulation contributes to a biologically optimal living environment. Due to its high heat storage capacity Fibertherm zell also prevents the entry of summer heat into the building. The effect: pleasant coolness on the hottest days, pleasant warmth in the deepest winter.



RAW MATERIAL

The raw material for FiberTherm flex comes from thinnings of surrounding pine forests and from saw mill residue.

No conventional formaldehyde or PMDI binders are used in the production of FiberTherm wood fibre insulating materials. Based on this, FiberTherm flex falls far below the minimum value of 0.1parts per million for formaldehyde emissions, required by the World Health Organisation (WHO).

Due to the constant control of raw materials during the production and by third party supervision, FiberTherm products are certified as emission free and non hazardous.

SAFETY ANTI-SEIZURE

In order to provide a constant insulation performance over decades, it is important that the insulation material retains its shape and volume.
When Fibertherm zell is blown in, there is a three-dimensional interlocking and interlocking of the individual wood fibers with each other (microscope image). Even at low densities, this guarantees the highest degree of settlement safety with high elasticity.

| MATERIAL

Wood fiber insulation board produced according to DIN EN 13171, with continuous quality control.
The wood used comes from well-managed forests and is independently certified according to the guidelines of the FSC® (Forest Stewardship Council®).

| STORAGE/TRANSPORT

FiberTherm zell must be kept dry

In case of moisture ingress please dry immediately and prevent further moisture uptake

FiberTherm zell should be stored flat on a level surface

Transport packaging should only be removed once the pallet is on a safe and level surface

For dust extraction please refer to national requirements

Tip for the preliminary design of the material quantity:
40 kg / m^3 or 2.5 - 3.0 sacks / m^3.

FiberTherm zell may be used in external components Gk0 in timber structures and prefabricated elements in accordance with the boundary conditions of the AbZ Z-23.11-1120.

| DELIVERY IN PRACTICAL BAGS

Fibertherm zell is supplied in 15 kg PE bags
21 bags per Pallet = 315 kg/Pallet
Pallet size= approx. 0,80 x 1.20 x 2,60 m (lenght x width x height)

| DELIVERY AS PALLET GOODS (INDUSTRIAL PACKAGING)

20 kg bales, open stacked on pallets and weatherproof packed with stretch hood.
18 bales per pallet = 360 kg / pallet
Pallet size= approx. 0,80 x 1.20 x 2,30 m (lenght x width x height)

Other forms of delivery on request

| TECHNICAL CHARACTERISTICS

	Fibertherm zell
Approval for wood fibers as thermal insulation	
General approval	German building institute Z-23,11-1120
European technical approval (ETA)	12/0011
Fire class according to 4102	B2
Fire class according to EN 13501-1	E
Declared thermal conductivity λ_D W/(m*K)	0,038 (according to ETA - 12/0011)
Declared thermal conductivity λ W/(m*K)	0,040 (according to AbZ-Z23.11 - 1120)
Recommended density kg / m^3	
• open inflation:	
top floor ceiling	approx. 32 - 38
• closed component cavities:	
Roof, ceiling, wall	approx. 35 - 45
Water vapour diffusion resistance value μ	1 - 2
Specific heat capacity c J / (kg * K)	2.100
Waste code (EAK)	030105 / 170201

Rated value of thermal conductivity according to ETA	λ [W /(m*K)]	0,038

Head office:
Via Falcone e Borsellino, 58
I-50013 Campi Bisenzio (FI)

T: +39 055 8953144
F: +39 055 4640609

info@betonwood.com
www.betonwood.com

FTHZELL IR.18.01

Beton Wood