

FiberTherm wood fiber insulating materials

Minimum Environmental Criteria

Version 1.0 reference:

Decree 11 October 2017

Ministry of the Environment and Protection
of the Territory and the Sea

"Minimum environmental criteria for the award of services
of design and works for the new construction,
renovation and maintenance of public buildings "

June 2020



CAM Structure Construction

Decree of 11 October 2017 - "Minimum environmental criteria for the award of design services and works for the new construction, renovation and maintenance of public buildings"

The CAM Building Decree aims to provide all the actors in the building process (public administrations, designers, construction companies and materials producers) with guidelines to reduce the environmental impact, from design to construction, by intervening on various aspects: from the consumption of non-renewable raw materials, to the consumption and degradation of soil, to energy and water consumption, up to the production of waste. The structure of the document includes criteria and requirements for the different phases of the construction process.

CAM Structure Construction

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Thermal and acoustic insulation

CAM specific for insulating materials and systems of attestation of conformity

For insulating materials, compliance with the criteria referred to in the article is required:

2.4.2.9 Thermal and acoustic insulation

The insulators used must meet the following criteria:

- they must not be produced using flame retardants that are subject to restrictions or prohibitions provided for by applicable national or community regulations;
- must not be produced with blowing agents with an ozone reduction potential greater than zero;
- must not be produced or formulated using lead catalysts when sprayed or in the course of plastic foaming;
- if produced from an expandable polystyrene resin, the blowing agents must be less than 6% of the weight of the finished product;
- if made up of mineral wool, these must comply with note Q or note R referred to in Regulation (EC) no. 1272/2008 (CLP) and subsequent amendments (29)
- if the finished product contains one or more of the components listed in the following table, these must be made from recycled and / or recovered material according to the minimum quantities indicated, measured on the weight of the finished product.

	Insulation through panels	Crammed insulation, by spray / blown	Insulation through mats
FiberTherm wood fiber	96-98% according to the type of product and the technology adopted for production	96-98% according to the type of product and the technology adopted for production	96-98% according to the type of product and the technology adopted for production

Verification:

the designer must make technical design choices that make it possible to meet the criterion and must prescribe that in the procurement phase the contractor must ensure compliance with the criterion. The percentage of recycled material must be demonstrated through one of the following options:

- a Type III environmental product declaration (EPD), compliant with the UNI EN 15804 standard and the ISO 14025 standard, such as EPDIItaly © or equivalent;
- a product certification issued by a conformity assessment body certifying the recycled content through the clarification of the mass balance, such as ReMade in Italy®, Plastic Second Life or equivalent;
- a product certification issued by a conformity assessment body certifying the recycled content through the clarification of the mass balance which consists in the verification of a self-declared environmental declaration, compliant with ISO 14021.

If the manufacturing company is not in possession of the certifications referred to in the previous points, it is allowed to present an inspection report issued by an inspection body, in accordance with ISO / IEC 17020: 2012, which certifies the content of material recovered or recycled in the product. In this case it is necessary to carry out an inspection activity during the execution of the works. This documentation must be presented to the contracting authority during the execution of the works, in the manner indicated in the relevant specifications.

Compliance with the **CAM** of the thermal insulators **FiberTherm wood fiber**

BetonWood has chosen to certify the conformity of its production range with CAM by adopting the first verification method mentioned by the legislator: the environmental product declaration - EPD - type III compliant with the UNI EN 15804 and ISO 14025 standards.

It is a complex procedure, which involves the involvement and verification of a third party, and which has been applied to the production range of **Fibertherm wood fiber** thermal insulation products under the **BetonWood** brand, giving rise to **11 EPDs** that detail, in addition to the requirements set by the CAM, the specific environmental impacts of each type of panel.

In the face of greater complexity, the attestation of conformity through type III EPD offers Contracting Stations, designers and clients the following advantages:

- the EPD is a complete document that provides quantitative data relating to environmental impacts during the entire life cycle of the products. The LCA (Life Cycle Assessment) analysis on which the EPDs are based, makes it possible to evaluate the different categories of environmental impact (GWP - greenhouse effect, ODP - reduction of the ozone layer, AP - acidification, EP - eutrophication, POCP - photochemical oxidant formation potential of tropospheric ozone; ADPE - depletion potential of abiotic non-fossil resources; ADPF - depletion potential of abiotic fossil resources), energy consumption, waste generation, use phase and different scenarios for end of life management.
- EPDs, prepared according to LCA with similar system boundaries, can be used to compare materials that perform the same function and for which the same Category Rules (PCR) apply.
- the data provided by the EPDs of the individual materials are essential for assessing the environmental sustainability of the entire building
- the availability of environmental data certified through EPD is foreseen by the most used building environmental certification protocols (LEED, ITACA, GBC, BREEAM, etc.).



Integrazione dei requisiti **CAM** nelle **EPD FiberTherm**

The **Fibertherm EPDs** are issued in accordance with the certification system of the processing of the individual EPDs, verified and supervised by the German **IBU** (Institut Bauen und Umwelt e.V.) which adheres to the **ECO PLATFORM** platform. The European platform brings together the main operators in the sector (including EPD International System, EPD Italy, etc.) and establishes the mutual recognition of Environmental Declarations issued by individual organizations.

The **Fibertherm EPDs** are internationally recognized and are written in English.

All of the **Fibertherm EPDs** are available online on **www.woodfiber.eu**.

Upon request, it is possible to provide a specific declaration relating to the data reported in the EPD and written in Italian.

The declaration explicitly refers to art. 2.4.2.9 of the Ministerial Decree 11/10/2017:

Fibertherm wood fiber insulation products:

- they **do not contain flame retardants** which are subject to restrictions or prohibitions provided for by national or community regulations.
- they **are not produced with blowing agents** with ozone-depleting potential greater than zero.
- they **are not formulated with lead catalysts**
- the **quantity of recycled material**, measured on the weight of the insulating product, is declared by means of a type III label, through the EPD environmental product declarations published on the website, is equal to **98%**.

BetonWood srl

Via di Rimaggio, 185
I-50019 Sesto Fiorentino (FI)

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

info@betonwood.com
www.betonwood.com

CAM 20.10

FiberTherm wood fiber insulating materials

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The compliance of **Fibertherm** wood fiber panels with the criteria established by art. 2.4.2.9 Decree of 11 October 2017 - "Minimum environmental criteria for the award of design services and works for the new construction, renovation and maintenance of public buildings" is certified by the release of the EPD available online.

We therefore declare that **Fibertherm**:

- they do not contain flame retardants which are subject to restrictions or prohibitions provided for by national or community regulations.
- they are not produced with blowing agents with ozone-depleting potential greater than zero.
- they are not formulated with lead catalysts
- the minimum quantity of recycled material, measured on the weight of the insulating product, is **98%**.

Fibertherm flex

Flexible wood fiber insulation with density 50/60 kg/m³

FiberTherm wood fiber insulating materials

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The compliance of **Fibertherm flex** wood fiber panels with the criteria established by art. 2.4.2.9 Decree of 11 October 2017 - "Minimum environmental criteria for the award of design services and works for the new construction, renovation and maintenance of public buildings" is certified by the release of the EPD available online.

We therefore declare that **Fibertherm flex**:

- they do not contain flame retardants which are subject to restrictions or prohibitions provided for by national or community regulations.
- they are not produced with blowing agents with ozone-depleting potential greater than zero.
- they are not formulated with lead catalysts
- the minimum quantity of recycled material, measured on the weight of the insulating product, is **98%**.

Plasterable wood fiber insulation with density 160 kg/m³

FiberTherm wood fiber insulating materials

Minimum Environmental Criteria



Fibertherm internal Beton  Wood
 Isolante in fibra di legno, densità 160 kg/m³

Dichiarazione Ambientale di Prodotto
 per ISO 14025 e EN 15804

Titolo programma	Isolati Beton and Umwelt e.V. (BU)
Editore	Isolati Beton and Umwelt e.V. (BU)
Numero Dichiarazione	EPO-STE 20110027-801-EN
Data pubblicazione	05.02.2019
Valido fino al	04.02.2021

Descrizione Prodotto

Panello in fibra di legno inmatricabile per l'incollamento a supporti inerti o in cartongesso.
 I pannelli Fibertherm internal sono ideati per occupare il minor spazio possibile, hanno elevata resistenza
 sia a compressione e sono omologati. Possibilità di essere applicati a parete, soffitti o manto/terrazze
 copripiscina.

• densità termica dichiarata $\lambda_D = 0,038$ W/mK
 • resistenza a compressione: 30 kPa
 • densità: 160 kg/m³
 • capacità termica massica (C): 2.000 J/kgK
 • certificato CMA, FSC, PEFC, BIF

The compliance of **Fibertherm internal** wood fiber panels with the criteria established by art. 2.4.2.9 Decree of 11 October 2017 - "Minimum environmental criteria for the award of design services and works for the new construction, renovation and maintenance of public buildings" is certified by the release of the EPD available online.

We therefore declare that **Fibertherm internal**:

- they do not contain flame retardants which are subject to restrictions or prohibitions provided for by national or community regulations.
- they are not produced with blowing agents with ozone-depleting potential greater than zero.
- they are not formulated with lead catalysts
- the minimum quantity of recycled material, measured on the weight of the insulating product, is **98%**.

Fibertherm SD

Wood fiber insulation with density 160 kg/m³

FiberTherm wood fiber insulating materials

Minimum Environmental Criteria



The compliance of **Fibertherm SD** wood fiber panels with the criteria established by art. 2.4.2.9 Decree of 11 October 2017 - "Minimum environmental criteria for the award of design services and works for the new construction, renovation and maintenance of public buildings" is certified by the release of the EPD available online.

We therefore declare that **Fibertherm SD**:

- they do not contain flame retardants which are subject to restrictions or prohibitions provided for by national or community regulations.
- they are not produced with blowing agents with ozone-depleting potential greater than zero.
- they are not formulated with lead catalysts
- the minimum quantity of recycled material, measured on the weight of the insulating product, is **98%**.

Fibertherm underfloor



Thin wood fiber insulation with density 250 kg/m³

FiberTherm wood fiber insulating materials

Minimum Environmental Criteria



Fibertherm underfloor **Betan Wood**
Insolare in fibra di legno, densità 250 kg/m³

Dichiarazione Ambientale di Prodotto
per ISO 14025 e EN 15804

Titolo progetto:	Insolati Betan and Umwelt e.V. (BU)
Editore:	Insolati Betan and Umwelt e.V. (BU)
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Data pubblicazione:	05.02.2019
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Descrizione Prodotto

Panello isolante in fibra di legno, con additivo di trattamento termico ed acido, densità 250 kg/m³, e resistenza a compressione ottenuta per essere utilizzato in tubi in press. dell'edilizia. Ideale per l'isolamento in costruzione in legno, ma anche in ristrutturazione e nuovo e coesione, su tralicci, calcitranti e strutture in legno massiccio. Pannello a bordo aperto.

• densità termica dichiarata $\lambda_D = 0,07$ W/mK
• resistenza alla diffusione di vapore acqua $\mu = 5$
• densità: 250 kg/m³
• capacità termica massica (C): 2000 J/kgK
• certificato CMA, FSC, PEFC, BU

The compliance of **Fibertherm underfloor** wood fiber panels with the criteria established by art. 2.4.2.9 Decree of 11 October 2017 - "Minimum environmental criteria for the award of design services and works for the new construction, renovation and maintenance of public buildings" is certified by the release of the EPD available online.

We therefore declare that **Fibertherm underfloor**:

- they do not contain flame retardants which are subject to restrictions or prohibitions provided for by national or community regulations.
- they are not produced with blowing agents with ozone-depleting potential greater than zero.
- they are not formulated with lead catalysts
- the minimum quantity of recycled material, measured on the weight of the insulating product, is **98%**.

Fibertherm floor

Wood fiber insulation with density 160 kg/m³

FiberTherm wood fiber insulating materials

Minimum Environmental Criteria



Fibertherm floor
Isolare in fibra di legno conosci 160 kg/m³

Beton Wood

Dichiarazione Ambientale di Prodotto
per ISO 14025 e EN 15804

Titolo progetto:	Isolat Beton und Umwelt e.V. (BUU)
Editore:	Isolat Beton und Umwelt e.V. (BUU)
Numero Dichiarazione:	EPO-STE 20150207-801-EN
Data pubblicazione:	05.02.2019
Valido fino al:	04.02.2021

Descrizione Prodotto

Il sistema di isolamento in fibra di legno è studiato per l'abbattimento dell'impatto sonoro in pavimentazioni di legno. Questo pannello modulare ha un profilo strutturato/esterna da rivestire con speciali rivestimenti in legno abbinabile per il fissaggio e pavimento.

- densità teorica del pannello 160 kg/m³
- resistenza a compressione 40 kPa
- spessore 160 mm
- capacità termica massica di 2.100 J/kgK
- certificati CAM, FSC, PEFC, BUU

The compliance of **Fibertherm floor** wood fiber panels with the criteria established by art. 2.4.2.9 Decree of 11 October 2017 - "Minimum environmental criteria for the award of design services and works for the new construction, renovation and maintenance of public buildings" is certified by the release of the EPD available online.

We therefore declare that **Fibertherm floor**:

- they do not contain flame retardants which are subject to restrictions or prohibitions provided for by national or community regulations.
- they are not produced with blowing agents with ozone-depleting potential greater than zero.
- they are not formulated with lead catalysts
- the minimum quantity of recycled material, measured on the weight of the insulating product, is **98%**.

Fibertherm isorel

Wood fiber insulation with density 230 kg/m³

FiberTherm wood fiber insulating materials

Minimum Environmental Criteria



The compliance of **Fibertherm isorel** wood fiber panels with the criteria established by art. 2.4.2.9 Decree of 11 October 2017 - "Minimum environmental criteria for the award of design services and works for the new construction, renovation and maintenance of public buildings" is certified by the release of the EPD available online.

We therefore declare that **Fibertherm isorel**:

- they do not contain flame retardants which are subject to restrictions or prohibitions provided for by national or community regulations.
- they are not produced with blowing agents with ozone-depleting potential greater than zero.
- they are not formulated with lead catalysts
- the minimum quantity of recycled material, measured on the weight of the insulating product, is **98%**.

Fibertherm roof dry

Wood fiber insulation with density 140 kg/m³

FiberTherm wood fiber insulating materials

Minimum Environmental Criteria



Fibertherm roof dry Beton Wood
Isolare in fibra di legno: densità 140 kg/m³

Dichiarazione Ambientale di Prodotto
per ISO 14025 e EN 15804

Titolo programma: Isolat Beton und Umwelt e.V. (IBU)
Editore: Isolat Beton und Umwelt e.V. (IBU)
Numero Dichiarazione: EPO-STE 20150027-IBU-EN
Data pubblicazione: 05.02.2019
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Descrizione Prodotto

Parquetto in fibra di legno per l'isolamento termico per estrazione di calore (ITE) grazie a "basse perdite". Ideale per il sottotetto dei tetti in coibentazione legno, ma anche in tetti a pendenza in nuove costruzioni tradizionali. Fornisce un'isolazione ininterrotta per le loro proprietà idrorepellenti.

• conduttività termica dichiarata $\lambda_D = 0,046$ W/mK
• resistenza a compressione $R_{D,0.05}$ di 20 kPa
• densità: ρ_{140} kg/m³
• capacità termica massica (C): 2.000 J/kgK
• certificato CMA, FSC, PEFC, IBU



The compliance of **Fibertherm roof dry** wood fiber panels with the criteria established by art. 2.4.2.9 Decree of 11 October 2017 - "Minimum environmental criteria for the award of design services and works for the new construction, renovation and maintenance of public buildings" is certified by the release of the EPD available online.

We therefore declare that **Fibertherm roof dry**:

- they do not contain flame retardants which are subject to restrictions or prohibitions provided for by national or community regulations.
- they are not produced with blowing agents with ozone-depleting potential greater than zero.
- they are not formulated with lead catalysts
- the minimum quantity of recycled material, measured on the weight of the insulating product, is **98%**.

Fibertherm protect M

Beton  Wood®

Plasterable wood fiber insulation with density 230 kg/m³

FiberTherm wood fiber insulating materials

Minimum Environmental Criteria



Dichiarazione Ambientale di Prodotto	
Titolo programma	Insolati Beton and Umwelt e.V. (BW)
Editore	Insolati Beton and Umwelt e.V. (BW)
Numero Dichiarazione	EPO-STE 26110027-801-BN
Data pubblicazione	05.02.2019
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Descrizione Prodotto

Parquetto in fibra di legno stratificata per l'isolamento a cappotto termico di pareti esterne ed interne. I pannelli hanno elevata densità, elevata resistenza a compressione e a trazione, sono ideati per l'isolamento a cappotto in costruzione in legno, ma anche in strutture in altri materiali costruttivi. Possibilità di avere a bordo sotto e soprastruttura.

• densità termica dichiarata $\lambda_D = 0,046 \text{ W/mK}$
• resistenza a compressione $R_{90} \geq 10 \text{ kN/m}^2$
• densità $\rho = 230 \text{ kg/m}^3$
• capacità termica massica $(c_p) = 2,000 \text{ J/kgK}$
• certificato CMA, FSC, PEFC, BIF



The compliance of **Fibertherm protect M** wood fiber panels with the criteria established by art. 2.4.2.9 Decree of 11 October 2017 - "Minimum environmental criteria for the award of design services and works for the new construction, renovation and maintenance of public buildings" is certified by the release of the EPD available online.

We therefore declare that **Fibertherm protect M**:

- they do not contain flame retardants which are subject to restrictions or prohibitions provided for by national or community regulations.
- they are not produced with blowing agents with ozone-depleting potential greater than zero.
- they are not formulated with lead catalysts
- the minimum quantity of recycled material, measured on the weight of the insulating product, is **98%**.

Fibertherm protect H

Beton  Wood®

Plasterable wood fiber insulation with density 265 kg/m³

FiberTherm wood fiber insulating materials

Minimum Environmental Criteria



Fibertherm protect H Beton  Wood
Isolare in fibra di legno: densità 265 kg/m³

Dichiarazione Ambientale di Prodotto
per EPD 14025 e 134 13014

Titolo programma	Isolati Beton and Umwelt e.V. (BU)
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Descrizione Prodotto

Parquetto in fibra di legno stratificabile per l'isolamento a cappotto termico di pareti esterne ed interne. I pannelli hanno elevata densità, elevata resistenza a compressione e a trazione, sono ideati per l'isolamento a cappotto in costruzione in legno, ma anche in strutture in c.a. e strutture in acciaio. Possibilità di avere a bordo aperto e forato/groovato.

• densità termica dichiarata $\lambda_D = 0,048$ W/mK
• resistenza a compressione 800 kPa
• densità: ~ 265 kg/m³
• capacità termica massica (C): 2000 J/kgK
• certificato CMA, FSC, PEFC, BU

  

The compliance of **Fibertherm protect H** wood fiber panels with the criteria established by art. 2.4.2.9 Decree of 11 October 2017 - "Minimum environmental criteria for the award of design services and works for the new construction, renovation and maintenance of public buildings" is certified by the release of the EPD available online.

We therefore declare that **Fibertherm protect H**:

- they do not contain flame retardants which are subject to restrictions or prohibitions provided for by national or community regulations.
- they are not produced with blowing agents with ozone-depleting potential greater than zero.
- they are not formulated with lead catalysts
- the minimum quantity of recycled material, measured on the weight of the insulating product, is **98%**.

Wood fiber insulation with density 270 kg/m³

FiberTherm wood fiber insulating materials

Minimum Environmental Criteria



Fibertherm universal **Beton Wood**
Isolare in fibra di legno: densità 270 kg/m³

Dichiarazione Ambientale di Prodotto
per ISO 14025 e EN 15804

Titolo progetto:	Isolati Beton und Umwelt s.V. (BUU)
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Data pubblicazione:	05.02.2019
Valido fino al:	04.02.2021

Descrizione Prodotto

Fanella di fibra di legno particolarmente stabile e leggera, adatta per l'isolamento termico ed acustico ad umidità elevata per tetti, sottotetti, pavimenti e solette a secco, solette per l'isolamento in cantieri in legno, ma anche in ristrutturazioni e nuove costruzioni tradizionali. Fanella disponibile in diverse misure e tagli su misura.

• densità termica dichiarata $\lambda_D = 0,048 \text{ W/mK}$
• resistenza a compressione 200 kPa
• densità: ~270 kg/m³
• capacità termica massica (C): 2000 J/kgK
• certificato CMA, FSC, PEFC, BU

The compliance of **Fibertherm universal** wood fiber panels with the criteria established by art. 2.4.2.9 Decree of 11 October 2017 - "Minimum environmental criteria for the award of design services and works for the new construction, renovation and maintenance of public buildings" is certified by the release of the EPD available online.

We therefore declare that **Fibertherm universal**:

- they do not contain flame retardants which are subject to restrictions or prohibitions provided for by national or community regulations.
- they are not produced with blowing agents with ozone-depleting potential greater than zero.
- they are not formulated with lead catalysts
- the minimum quantity of recycled material, measured on the weight of the insulating product, is **98%**.

Fibertherm special

Wood fiber insulation with density 240 kg/m³

Beton  Wood®

FiberTherm wood fiber insulating materials

Minimum Environmental Criteria



Fibertherm special Beton Wood
Isolare in fibra di legno: densità 240 kg/m³

Dichiarazione Ambientale di Prodotto
per ISO 14025 e EN 15804

Titolo programma	Institut Bauen und Umwelt e.V. (IBU)
Editore	Institut Bauen und Umwelt e.V. (IBU)
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Valida fino al	04.02.2021

Descrizione Prodotto

Panello in fibra di legno per l'isolamento termico ed acustico sulla parete esterna di tutti piani di un fabbricato, installato al vento e all'ombra e con un'eventuale vernice biodegradabile per l'isolamento del tetto in costruzioni in legno, ma anche in ristrutturazioni e nuove costruzioni tradizionali.

• densità termica dichiarata $\lambda_D = 0,046 \text{ W/mK}$
• resistenza a compressione 330 kPa
• densità $\rho = 240 \text{ kg/m}^3$
• capacità termica massica $(c_p) = 2,000 \text{ J/kgK}$
• certificato CMA, FSC, PEFC, IBU

   

The compliance of **Fibertherm special** wood fiber panels with the criteria established by art. 2.4.2.9 Decree of 11 October 2017 - "Minimum environmental criteria for the award of design services and works for the new construction, renovation and maintenance of public buildings" is certified by the release of the EPD available online.

We therefore declare that **Fibertherm special**:

- they do not contain flame retardants which are subject to restrictions or prohibitions provided for by national or community regulations.
- they are not produced with blowing agents with ozone-depleting potential greater than zero.
- they are not formulated with lead catalysts
- the minimum quantity of recycled material, measured on the weight of the insulating product, is **98%**.