

**CELLULOSE  
BOARDS  
HONEXT**

Product family:

Honext Board

# CELLULOSE BOARDS

HONEXT

HONEXT cellulose board

**Product family representative**  
HONEXT

**Features**

Max. Dimensions 2440mm\*x1220mm  
\* In addition 2500mm could be reached  
Thickness 10mm  
Density: 700kg/m3 / 400kg/m3  
Reaction to fire: Class C

**Contact information**

honextmaterial.com/es  
info@honextmaterial.com  
Torre d'Ara, Av. Cabrera, 36, 1º, Torre D'Ara, N-II,  
km 644, 08302 Mataró, Barcelona

HONEXT



**Issue date: December 2020**

**Summary table: Environmental parameters to which the material has specific contribution.**  
Detailed in each of the environmental certification sheets VERDE, LEED and BREEAM

	Supporting documents	Certifications: Cradle to Cradle					Self declarations:			Potential
Slites Mobility	Solar Reflection Index SRI	Rainwater management	Light pollution reduction.	...						
Energy & atmosphere	Embedded energy	Greenhouse gases	Optimize energy performance	Equipment efficiency	Other polluting gases	Renewable energy	Energy management	...		
Materials	Accredited location	pre-consumer recycling	Post-consumer recycling	Potential reuse	Certified wood	Construction waste management	Chemical composition	...		
Water	Demand < reference	Water management	...							
Indoor environment	Low VOC emissions	Formaldehyde emissions	Comfort control	Comfort lighting	Acoustic comfort	Air quality	...			
Innovation	Innovation and design	...								

Notes:

- The information contained in this document of compliance with the credits corresponding to the chosen environmental certification system of study (GREEN or LEED or BREEAM) is based on the information provided by the company. In order to ensure the possibility of compliance with credits, it will be necessary in the process of any of the seals to verify the validity of the information and data provided by the company.
- This document does not constitute product certification, nor does it guarantee compliance with local regulations.
- The conclusions of this study apply only to the products mentioned in this report and are subject to the invariability of the technical conditions of the product.
- The validity of this document is subject to the expiration of the supporting documents or changes in regulations and/or versions of the environmental certification seals.
- This document reports on the possible contribution of the products studied to obtaining GREEN, LEED and BREEAM certifications. However, the final decision on whether or not a product meets the requirements for LEED certification is the sole responsibility of the GBCI (Green Business Certification Inc.)

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# CREDIT SUMMARY

## VERDE



### NATURAL RESOURCES (NR)

- RN 05 Use of recycled materials
- RN 06 Use of materials obtained from sustainable sources
- RN 07 Use of regional materials
- RN 09 Construction waste management



### Indoor environment (IE)

- AI 01 Limits in VOC emissions

### Environmental categories: VERDE



Plot and location



Energy & atmosphere



Natural resources



Indoor environment



Building quality



Social aspects



Innovation

### VERDE certification standards

Buildings 2020

Private residential  
other than private residential

DU P

Urban polygon developments

# CRITERIA SHEET VERDE



## CATEGORY NATURAL RESOURCES

### ◆ RN 05 Use of recycled materials (VERDE Buildings 2020)

<b>Intent</b>	In order to reduce the use of raw material and the impacts associated with their extraction, incentives will be provided to choose producers with higher levels of pre-consumer and post-consumer recycling.
<b>Compliance data</b>	HONEXT cellulose fiberboards contain more than 98% post-consumer recycled material that comes from industrial paper waste and is 100% recyclable afterwards.
<b>Evaluation procedure</b>	<p>The evaluation of the criterion is as follows:</p> <ul style="list-style-type: none"> <li>· Linear 50%: the mass percentage of post-consumer recycled ceramics, aggregates, concrete and Stone elements plus 50% of pre-consumer respect the total of ceramics, aggregates, concrete and Stone, ranges between 40-100%.</li> <li>· Linear 50%: the percentage by volumen of post-consumer recycled materials other than ceramics, aggregates, concrete and Stone, plus 50% pre-consumer, with respect to the total materials used, ranges between 10-30%.</li> </ul>
<b>Example of analysis</b>	N/A
<b>Supporting documents</b>	<i>Self declaration: recycled content and proximity.</i>
<b>Reference standard</b>	UNE-EN ISO 14021



## CATEGORY NATURAL RESOURCES

### ◆ RN 06 Use of materials obtained from sustainable resources (VERDE Buildings 2020)

<b>Intent</b>	Encourage the use of materials whose origin and extraction meet recognized social and environmental standards. The objective is to protect forests, avoid child exploitation and maintain environmentally friendly standards in the extraction of natural stone.
<b>Compliance data</b>	HONEXT has a Code of Conduct for its suppliers that sets out a series of responsibilities to be fulfilled: labor conditions, professional ethics, environmental protection, and social and environmental responsibility policies.
<b>Evaluation procedure</b>	<p>The evaluation of the building through this credit is established by means of the calculation of the mass percentage of materials obtained from sustainable resources, assessing that:</p> <ul style="list-style-type: none"> <li>· 70% linear: Between 20 and 50% by mass of the wood and materials that include wood in their composition have a CoC chain of custody certificate of origin. This will include timber used during construction, even if it is not to be permanently installed in the building, such as pallets.</li> <li>· 30% linear: Between 5 and 15% by mass of the building materials have a document stating the origin of the raw materials guaranteeing the requirements indicated in the credit.</li> </ul>
<b>Example of analysis</b>	N/A
<b>Supporting documents</b>	<i>Supplier Code of Conduct.</i>
<b>Reference standard</b>	N/A



## CATEGORY NATURAL RESOURCES

### ➤ RN 07 Use of regional materials (VERDE Buildings 2020)

**Intent** Encourage the use of local materials, thus boosting the local economy and reducing transportation impacts.

**Compliance data** The use of this product can contribute to meeting the credit for projects located less than 200km from the fabric. The production site is shown below.

PRODUCT	Fabricated in:
HONEXT BOARD	Vacarisses, Barcelona

### Evaluation procedure

The evaluation of the building through this credit is established by calculating the percentage by volume of materials whose production plant is located less than 200 km from the construction site.

- Linear 40%: ceramic elements, aggregates, stone and concrete whose production plant is located less than 200 km from the work site ranges between 50 and  $\geq 80\%$ . For distances between 200-400 km a new linear scale will be applied in which materials at 200 km compute at 100% and materials 400km at 0%.

Linear 60%: elements other than ceramics, aggregates, stone and concrete, whose production plant is located less than 200 km from the site, used in the project, range between 40% and  $\geq 80\%$ . For distances between 200-400 km, a new linear scale will be applied in which materials at 200 km are computed at 100% and materials at 400 km at 0%.

**Example of analysis** N/A

**Supporting documents** *Self-declaration: recycled content and proximity.*

**Reference standard** N/A



## CATEGORY NATURAL RESOURCES

### ➤ RN 09 Construction waste management (VERDE buildings 2020)

**Intent** Reduce waste generated during the construction of the building by using prefabricated and industrial elements, or by using controlled construction processes that minimize waste production. This criterion considers only waste generated during the construction or renovation phase.

**Compliance data** The waste that may be generated on site by the use of HONEXT panels, is the waste from their transport packaging. The following table specifies the weight and destination of the waste generated according to a functional unit of 1m<sup>2</sup> of surface area:

PRODUCT	WEIGHT
Wood pallet	2,1 E-01 kg
Recycled plastic strapping	2,9 E-03kg
Cardboard	2,3 E-02 kg

**Evaluation procedure** The evaluation of the building through this credit is established by calculating the volume of NON-hazardous waste generated in the construction of the building in the elements to be evaluated.

All material wastes that will be generated during construction or demolition work must be identified in advance, specifying the quantity, quality and physical location where these wastes will be generated.

- Linear 50%: revaluation of 50 to 75% by volume of the waste generated on site has been guaranteed.
- Linear 50%: an analysis of possible alternatives in the use of construction systems or materials used in the building to minimize the production of waste during the execution of the work has been carried out.

**Example of analysis** NA

**Supporting documents** *Self-declaration: waste generated during constructio*

**Reference standard** *LEY 10/1998 de Residuos*





## CATEGORY INDOOR ENVIRONMENT

### AI 01 Limitation in VOC emissions (VERDE Buildings 2020)

<b>Intent</b>	Reduce the concentration of VOCs (Volatile Organic Compounds) in indoor air.
<b>Compliance data</b>	HONEXT panels belong to the group of zero-emission wood-based composites. It will help in a favorable result in case of emission test at the end of the construction.
<b>Evaluation procedure</b>	<ul style="list-style-type: none"> <li>Linear 100%: A test has been performed at the latest 28 days after completion of the building construction and before installation of the furniture, following the specifications of EN ISO 16000-3 and EN ISO 16000-6 and with the results described in the calculation method.</li> <li>Linear 60%: The products installed in the building belonging to the following types: paints and varnishes, adhesives and sealants and wood derivatives have zero VOC emissions.</li> <li>Linear 40%: The products installed in the building belonging to the families evaluated have the following VOC limitation: <ul style="list-style-type: none"> <li>- paints and varnishes, one third of those required in RD 227/2006.</li> <li>- adhesives and sealants, rating EMICODE EC1PLUS or ED1, OR GREENGUARD Gold</li> <li>- wood derivatives, classification E1 according to the UNE-EN 13986:2006 standard.</li> </ul> </li> </ul> <p>In case of scoring in any of the indicators of choice of materials and also take the test, the evaluation of the credit will be accounted with the higher value of both measurements, they cannot be added.</p>
<b>Example of analysis</b>	N/A
<b>Supporting documents</b>	<i>P2020-00511 Honext Material-emisiones</i>
<b>Reference standard</b>	N/A

# CREDIT SUMMARY

## LEED v4



### MATERIALS AND RESOURCES (MR)

- MR Building product disclosure and optimization –sourcing of raw materials
- MR Building product disclosure and optimization – material ingredients
- MR Construction and demolition waste management



### INDOOR ENVIRONMENTAL QUALITY (IEQ)

- IEQ Low-emitting materials



### INNOVATION & DESIGN (ID)

- ID Innovation and design. Exemplary performance

### LEED environmental categories



(LT)  
Location and  
Transportation



(SS)  
Sustainable  
sites



(WE)  
Water  
efficiency



(EA)  
Energy and  
atmosphere



(MR)  
Materials  
and  
resources



(IEQ) Indoor  
Environmental  
quality



(ID)  
Innovation  
and design



(RP)  
Regional  
Priority

### LEED Certification standards (v4)

**EB** Existing Building  
**NC** New Construction  
**CI** Commercial Interiors  
**CS** Core & Shell  
**SNC** School New Construction  
**SEB** School Existing Building  
**MRB** Mid Rise Buildings

**RNC** Retail New Construction  
**REB** Retail Existing Building  
**RCI** Retail Commercial Interiors  
**HC** Healthcare  
**HNC** Hospitality-New Constr.  
**HEB** Hospitality-Existing Building  
**HCI** Hospitality-Commercial Int.

**DCNC** Data Center NC  
**DCEB** Data Center EB  
**WNC** Warehouse NC  
**WEB** Warehouse EB  
**NDP** Neighborhood Devel. Plan  
**ND** Neighborhood Develop.  
**HM** Homes

# CREDIT SHEET

## LEED v4



### CATEGORY

## MATERIALS AND RESOURCES (MR)

#### MR Building product disclosure and optimization - Sourcing of raw materials (NC, CS, SNC, RNC, HC, HNC, DCNC, WNC, CI, RCI, HCI)

**Intent** Encourage the use of products and materials that have life cycle information and demonstrate a reduction in life cycle impacts. Recognize teams that select products from responsible sources.

**Compliance data** HONEXT cellulose fiberboards contribute to the fulfillment of option 2 because they contain more than 98% post-consumer recycled material from industrial paper waste and are 100% recyclable afterwards..

The distance between the extraction of the raw material and the factory is less than 100km, it is positively valued if the site is located within a radius of 60km from the factory or 160km from the site to the extraction of the raw material by means of a Honext declaration.

PRODUCT	FABRICATED IN:
HONEXT BOARD	Vacarises, Barcelona

**Evaluation procedure** **Option 2. Leadership extraction practices**  
Use products that meet at least one of the responsible extraction criteria below for at least 25%, by cost, of the total value of permanently installed building products in the project that meet at least one of the following:

- Extended producer responsibility.
- Bio-based materials
- Wood products with FSC
- Materials reuse
- Recycled content

*Products obtained (extracted, manufactured and purchased) within a radius of 160km from the plot are valued at 200% of cost..*

**Example of analysis** N/A

**Supporting documents** *Self-declaration: recycled content and proximity*

**Reference standard** N/A



## CATEGORY MATERIALS AND RESOURCES (MR)

### MR Building product disclosure and optimization - Material ingredients (NC, CS, SNC, RNC, HC, HNC, DCNC, WNC, CI, RCI, HCI)

**Intent** To encourage the use of products and materials for which life-cycle information is available and that have environmentally, economically, and socially preferable life-cycle impacts. To reward project teams for selecting products for which the chemical ingredients in the product are inventoried using an accepted methodology and for selecting products verified to minimize the use and generation of harmful substances. To reward raw material manufacturers who produce products verified to have improved life-cycle impacts.

**Compliance data** HONEXT cellulose fiberboards contribute to Option 1 and 2 compliance because they are Cradle to Cradle C2Cv3.1 Silver certified. The distance between the extraction of the raw material and the factory is less than 100km, it is computed at 200% if the site is located within a radius of 60km from the factory or, failing that, 160km from the site to the extraction site. Extraction of the raw material justified by a declaration of Honext.

PRODUCT	FABRICATED IN:
HONEXT BOARD	Vacarises, Barcelona

### Evaluation procedure

#### Option 1. Material ingredient reporting

Use at least 20 different permanently installed products from at least five different manufacturers that use any of the following:

- Manufacturing inventory
- Cradle to Cradle certificate
- Health product declaration HPD
- Declare product label
- ANSI/BIFMA E3
- Product Lens certification
- Facts NSF/ANSI 336
- USGBC approved program

#### Opción 2. Material ingredient

Use products for at least 25%, by cost, of the total value of permanently installed products in the project that have one of the following:

- GreenScreen v1.2
- Cradle to Cradle certified
- REACH optimization
- USGBC approved program

Products (extraction, manufacture and purchase) from a radius of less than 160 km from the project site will be computed at 200%

### Example of analysis

N/A

### Supporting documents

*Cradle to Cradle certification*  
*Self-declaration: recycled content and proximity*

### Reference standard

NA



## CATEGORY MATERIALS AND RESOURCES (MR)

### MR Construction and demolition waste management (NC, CS, SNC, RNC, HC, HNC, DCNC, WNC, CI, RCI, HCI)

**Intent** Reduce construction and demolition waste deposited in landfills and incinerated through recovery, reuse, and recycling.

**Compliance data** The waste that may be generated on site by the use of HONEXT panels is the waste from their transport packaging. The following table specifies the weight of waste generated according to a functional unit of of 1m<sup>2</sup> of surface area:

PRODUCT	WEIGHT
Wood pallet	2,1 E-01 kg
Recycled plastic strapping	2,9 E-03kg
Cardboard	2,3 E-02 kg

**Evaluation procedure** **Option 2. Reduction of total waste material:** Do not generate more than 12.2 kilograms of construction waste per square meter of the building's floor area.

**EP\* Comply also with option 1:** Recycle 50-75% of on-site waste, including 3 - 4 types of waste.

*\*EP: Exemplary performance: (Additional point)*

**Example of analysis** N/A

**Supporting documents** *Self-declaration: Waste generated during construction*

**Reference standard**

- European Commission Waste Framework Directive 2008/98/EC
- European Commission Waste Incineration Directive 2000/76/EC
- EN 303-1—1999/A1—2003
- EN 303-3—1998/AC—2006
- EN 303-4—1999
- EN303-5—2012
- EN303-6—2000
- EN303-7—2006



## CATEGORY INNOVATION AND DESIGN (ID)

### ID Innovation (NC, CS, SNC, RNC, HC, HNC, DCNC, WNC, CI, RCI, HCI)

<b>Intent</b>	Encouraging projects to achieve exceptional or innovative performance.
<b>Compliance data</b>	Honext can contribute to meeting the exemplary performance in the following credits: <ul style="list-style-type: none"> <li>· MR Construction and demolition waste management</li> <li>· IEQ low-emitting materials</li> </ul>
<b>Example of analysis</b>	N/A
<b>Supporting documents</b>	<i>See corresponding requirements for each credit.</i>
<b>Reference standard</b>	<i>See corresponding requirements for each credit.</i>

# CREDITS SUMMARY

## BREEAM



### MATERIALS



- MAT3, Life cycle impacts (BREEAM ES New Construction 2015)
- MAT3, Responsible sourcing of building products (BREEAM ES Homes 2020)

### WASTE



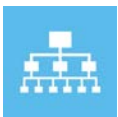
- RSD 1, Construction Waste Management (BREEAM ES New Construction 2015)
- RSD 1, Construction and Demolition Waste Management (BREEAM ES Homes 2020)

### INNOVATION



- INNOVATION

#### Environmental Categories BREEAM ES



Management



Health and wellbeing



Energy



Transport



Water



Materials



Waste



Land use and ecology



Pollution



Innovation

#### Certification standards BREEAM ES

UR BREEAM ES Urbanism  
NC BREEAM ES New Construction

VIV BREEAM ES Homes

USO BREEAM ES In use

# CREDIT SHEET

# BREEAM ES



## CATEGORY

## MATERIALS

- **MAT3 Responsible sourcing of materials**
- **MAT3 Responsible sourcing of construction materials**  
(BREEAM ES New Construction 2015, BREEAM ES Homes 2020, respectively)

<b>Intent</b>	To recognize and encourage the specification and procurement of responsibly sourced materials for key building elements.
<b>Compliance data</b>	HONEXT material is a circular material with excellent properties made from cellulosic waste that has a recycled content (industrial and post-consumer paper waste) of more than 98% and is 100% recyclable afterwards.
<b>Evaluation procedure</b>	<p><b>BREEAM ES New Construction – Exemplary level:</b> When 70% of the available responsible sourcing points have been reached, one extra point per exemplary level will be earned.</p> <p><b>BREEAM ES Homes – Exemplary level:</b> When 50% of the available responsible sourcing points have been reached, one extra point per exemplary level will be earned.</p>
<b>Example of analysis</b>	N/A
<b>Supporting documents</b>	<i>Self-declaration: recycled content</i>
<b>Reference standard</b>	<i>UNE-EN ISO 14021</i>





## CATEGORY WASTE

- **RSD 1 Construction waste management**
- **RSD 1 Construction and demolition waste management**  
(BREEAM ES New Construction 2015, BREEAM ES Homes 2020, respectively)

**Intent** To promote resource efficiency via the effective management and reduction of construction waste.

**Compliance data** All waste generated at the construction site for each m2 of HONEXT board installed can be recycled, contributing to the diversion of resources from landfill.

PRODUCT	WEIGHT
Wood pallet	2,1 E-01 kg
Recycled plastic strapping	2,9 E-03kg
Cardboard	2,3 E-02 kg

**Evaluation procedure** In this requirement, for both typologies, the following can be obtained:

**Reduction of construction waste - 2 points:**

Procedures have been implemented to minimize the production of waste during construction, while monitoring and follow-up of these have been carried out. Likewise, procedures have been implemented through an authorized external waste manager to classify, reuse and recycle this waste.

**Diversion of resources from the landfill - 1 point:**

Waste has been diverted from the landfill for recycling or reuse exceeding the national rate by more than 10%.

**Exemplary level:**

Waste has been diverted from landfill for recycling or reuse exceeding the national rate by more than 25%

**Example of analysis** N/A

**Supporting documents** *Self-declaration: waste generated during construction*

**Reference standard** N/A



## CATEGORY INNOVATION



### Innovation

(BREEAM ES New Construction 2015, BREEAM ES Homes 2020)

<b>Intent</b>	Encourage innovation within the construction industry by recognizing sustainability improvements that are not rewarded through the Standard Requirements.
<b>Evaluation procedure</b>	<p>HONEXT MATERIAL S.L. can contribute to meet the exemplary level in the following requirements:</p> <p><u>BREEAM ES NEW CONSTRUCTION 2015:</u></p> <ul style="list-style-type: none"> <li>• MAT 3 – Responsible sourcing of materials</li> <li>• RSD 1 – Construction waste management</li> </ul> <p><u>BREEAM ES HOMES 2020:</u></p> <ul style="list-style-type: none"> <li>• MAT 3 - Responsible sourcing of construction materials</li> <li>• RSD 1 - Construction and demolition waste management</li> </ul>
<b>Example of analysis</b>	N/A
<b>Supporting documents</b>	<i>See corresponding requirements for each requirement</i>
<b>Reference standard</b>	<i>See corresponding requirements for each requirement.</i>