PARTICLEBOARDS
FINSA

Product Family


Tablero de partículas de madera aglomerada (PB) de FINSA

ELEMENTS: WOOD COMPOSITES. PARTICLEBOARDS (PB)
**PARTICLEBOARDS**

**Product family representative**
Fimapan/Superpan

**Description**
- Thickness (mm) = 2 to 70 mm
- Width (mm) = 1220 to 2440 mm
- Long (mm) = 2440 to 5700 mm

**Contact information**
- www.finsa.es
- finsa@finsa.es
- +34 981 05 00 00

**Issue date:** November 2018

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**Summary table: Environmental parameters, in which products have a specific contribution.**
Contribution detailed in LEED and BREEAM sections

<table>
<thead>
<tr>
<th>Support Documentation</th>
<th>Certificated: EPD, CSR, REACH</th>
<th>Self-declared</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site. Mobility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solar Reflectance Index SRI</td>
<td>Rainwater Management</td>
<td>Exterior lighting</td>
<td>...</td>
</tr>
<tr>
<td>Energy Atmosph.</td>
<td>Embodied Energy</td>
<td>Greenhouse gases</td>
<td>Energy Demand Reduction</td>
</tr>
<tr>
<td>Materials</td>
<td>Accredited location</td>
<td>Pre-consumer recycled content</td>
<td>Post-consumer recycled content</td>
</tr>
<tr>
<td>Water</td>
<td>Consumption &lt; reference</td>
<td>Water management</td>
<td>...</td>
</tr>
<tr>
<td>Indoor Envir.</td>
<td>Low emitting VOC's</td>
<td>Low emitting formaldehyde</td>
<td>Thermal comfort</td>
</tr>
<tr>
<td>Innovation</td>
<td>Innovation</td>
<td>...</td>
<td></td>
</tr>
</tbody>
</table>

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**NOTES:**
1. The information included in this document shows product compliance with environmental certification (VERDE, LEED or BREEAM) criteria. The analysis is performed based on the information provided by manufacturer.
2. This document does not constitute a product certification, nor does it guarantee compliance with local regulations.
3. The conclusions of this study apply only to products included in this report, and are subject to the invariability of product technical conditions.
4. The validity of this document is subject to supporting documents expiration date, regulations variation, and environmental certification systems updates.
5. This document informs about products possible contribution to VERDE, LEED or BREEAM certifications. However, the final decision on whether or not a product meets certification requirements is exclusive to certification bodies: GBCI (Green Business Certification Inc.) for LEED certification and BREEAM ES for BREEAM certification.
Table of Contents

CREDIT SUMMARY ............................................................................................................................................. 4
LEED v4 .......................................................................................................................................................... 4
MATERIAL & RESOURCES (MR) .......................................................................................................................... 5
  • MR Certified tropical wood (prerequisite) .................................................................................................... 5
  • MR Building life-cycle impact reduction .................................................................................................... 6
  • MR Building product disclosure and optimization - Environmental Product Declarations .................... 7
  • MR Building product disclosure and optimization - sourcing of raw materials ....................................... 9
  • MR Building product disclosure and optimization - material ingredients .............................................. 11
  • MR Environmentally preferable products ................................................................................................ 13
INDOOR ENVIRONMENTAL QUALITY (IEQ) ................................................................................................. 14
  • IEQ Low-emitting materials ....................................................................................................................... 14
  • IEQ Indoor air quality assessment ............................................................................................................ 16
INNOVATION (ID) .......................................................................................................................................... 18
  • ID Innovation ............................................................................................................................................. 18
REQUISITE SUMMARY BREEAM ................................................................................................................... 19
HEALTH AND WELLBEING .......................................................................................................................... 20
  • SyB 2 - SyB 8 Indoor air quality .................................................................................................................. 20
MATERIALS ..................................................................................................................................................... 22
  • MAT1 - Life cycle impacts .......................................................................................................................... 22
  • MAT8 - Low environmental Impact Materials .......................................................................................... 22
  • MAT3 - Responsible sourcing of materials ............................................................................................... 23
  • MAT9 - Responsible sourcing of materials - building basic elements ...................................................... 23
  • MAT10 - Responsible sourcing of materials - finishes .......................................................................... 23
INNOVATION ................................................................................................................................................... 24
  • INNOVATION ............................................................................................................................................. 24
CREDIT SUMMARY
LEED v4

MATERIAL & RESOURCES (MR)
MR Certified tropical wood (prerequisite)
MR Building life-cycle impact reduction
MR Building product disclosure and optimization - Environmental Product Declarations
MR Building product disclosure and optimization - sourcing of raw materials
MR Building product disclosure and optimization - material ingredients
MR Environmentally preferable products

INDOOR ENVIRONMENTAL QUALITY (IEQ)
IEQ Low-emitting materials
IEQ Indoor air quality assessment

INNOVATION (ID)
ID Innovation. Exemplary Performance

LEED Categories
- (LT) Location & Transportation
- (SS) Sustainable Sites
- (WE) Water Efficiency
- (EA) Energy & Atmosphere
- (MR) Material & Resources
- (IEQ) Indoor Environmental Quality
- (ID) Innovation
- (RP) Regional Priority

LEED (v4) Rating Systems
EB Existing Building
NC New Construction
CI Commercial Interiors
CS Core & Shell
SNC School New Construction
SEB School Existing Building
MMR Multifamily Mid Rise
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 DOCUMENT

CATEGORY
MATERIAL & RESOURCES (MR)

MR Certified tropical wood (prerequisite)
(HM and MMR)

Intent
To encourage environmentally responsible forest management.

Compliance information
The FINSA PB composite wood boards are FSC certified (Certificate No. TT-COC-003279). It therefore contributes to the fulfillment of the prerequisite.

LEED Requirements
All wood in the building must be nontropical, reused or reclaimed, or certified by the Forest Stewardship Council, or USGBC-approved equivalent.

For the purposes of this prerequisite, a tree species is considered tropical if it is grown in a location that lies between the Tropic of Cancer and the Tropic of Capricorn.

Example
NA

Support Documentation
FSC “FINSA FSC TT-COC-003279” Certificate

Reference Standards
• Forest Stewardship Council: fsc.org
CATEGORIES
MATERIAL & RESOURCES (MR)

MR Building life-cycle impact reduction
(NC, CS, SNC, RNC, HC, HNC, DCNC, WNC)

Intent
To encourage adaptive reuse and optimize the environmental performance of products and materials.

Compliance information
FINSA has developed the Environmental Product Declaration (EPD) “Particleboards and Melamine Faced Particleboards”.

The impacts calculated on the EPD can be used for the development of the LCA of the proposed building, as long as the material is part of the systems analyzed (structure and enclosure) and bearing in mind that the final result will depend on the overall balance of all the MATERIALS involved.

LEED Requirements
Option 4: whole-building life-cycle assessment (structure and enclosure)

Conduct a life-cycle assessment of the project’s structure and enclosure that demonstrates a minimum of 10% reduction, compared with a baseline building, in at least three of the six impact categories listed below, one of which must be global warming potential:

- Global warming potential (greenhouse gases), in kg CO2e;
- Depletion of the stratospheric ozone layer, in kg CFC-11;
- Acidification of land and water sources, in moles H+ or kg SO2;
- Eutrophication, in kg nitrogen or kg phosphate;
- Formation of tropospheric ozone, in kg NOx, kg O3 eq, or kg ethene; and
- Depletion of nonrenewable energy resources, in MJ.

No impact category assessed as part of the life-cycle assessment may increase by more than 5% compared with the baseline building.

EP* Option 4: Achieve any improvement over the required credit thresholds in all six impact measures.

*EP: Requirements for Exemplary Performance (see Innovation LEED category)

Example
NA

Support Documentation
“FINSA TMA” Environmental Product Declaration.

Reference Standards
- ISO 14044
CATEGORY
MATERIAL & RESOURCES (MR)

MR Building product disclosure and optimization - Environmental
Product Declarations
(NC, CS, SNC, RNC, HC, HNC, DCNC, WNC)

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 from
manufacturers who have verified improved environmental life-cycle impacts.

Compliance information
The FINSA PB composite wood board has a product specific EDP
"Particleboards and Melamine Faced Particleboards", which includes a third
party verification and complies with the ISO 14025 and 15804. They therefore
contribute to 100% in the fulfillment of the Credit. The operator of the program
is The International EPD® System.

To justify compliance with option 2, it will be necessary to compare 6
environmental impact categories with the industry average.

For projects located less than 160km from the points of extraction, manufacture
and purchase products, this product will be valued at 200% of the cost.

Table 01: The following describes the places of manufacture and extraction of
raw materials from the agrifiber boards PB of Finsa:

<table>
<thead>
<tr>
<th>Manufacturer Facility</th>
<th>Components</th>
<th>Percentage of the total material</th>
<th>EXTRACTION LOCATION</th>
<th>MANUFACTURE LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>FINSA Santiago</td>
<td>Wood</td>
<td>90%</td>
<td>N 550 km15890 Santiago</td>
<td>N 550 km15890 Santiago (La Coruña)</td>
</tr>
<tr>
<td></td>
<td>Additives</td>
<td>10%</td>
<td>Av. Doña Urraca 91 36650 Caldas de Reis (Pontevedra)</td>
<td></td>
</tr>
<tr>
<td>FINSA Nelás</td>
<td>Wood</td>
<td>90%</td>
<td>Estrada Nacional 234, km 92,7 3524952 Nelás - Portugal</td>
<td>Estrada Nacional 234, km 92,7 3524952 Nelás - Portugal</td>
</tr>
<tr>
<td></td>
<td>Additives</td>
<td>10%</td>
<td>Avenida dos Bacalhoeiros 3834-908 Gafanha da Nazaré (Portugal)</td>
<td></td>
</tr>
<tr>
<td>FINSA Cella*</td>
<td>Wood</td>
<td>90%</td>
<td>Partida de Hazas s/n 44370 Cella (Teruel)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Additives</td>
<td>10%</td>
<td>Av. Doña Urraca 91 36650 Caldas de Reis (Pontevedra)</td>
<td></td>
</tr>
</tbody>
</table>
The manufacturing facilities indicated in the table above manufacture all of the FINSA TMA boards. The boards are distributed from the factory closest to the project’s site. FINSA will develop a tailored statement based on the location of the work: contact p.lopez@finsa.es.

**LEED Requirements**

**Option 1. Environmental Product Declarations (EPD) (1 point)**

Use at least 20 different permanently installed products sourced from at least five different manufacturers that meet one of the disclosure criteria below.

- Products with a publicly available, critically reviewed product-specific conforming to ISO 14044 that have at least a cradle to gate scope are valued as one quarter (1/4) of a product for the purposes of credit achievement calculation.
- Environmental product declarations which conform to ISO 14025 and EN 15804 or ISO 21930 and have at least a cradle to gate scope:
  - Industry-wide (generic) EPDs are valued as one half (1/2) of a product for purposes of credit achievement calculation.
  - Product-specific Type III EPD are valued as one whole product for purposes of credit achievement calculation.

**EP* Option1**: Source at least 40 qualifying products from five manufacturers.

**Option 2. Multi-attribute optimization (1 point)**

Use third party certified products for 50%, by cost, of the total value of permanently installed products in the project that demonstrate impact reduction below industry average in at least three of the following categories.

- global warming potential (greenhouse gases), in CO2e;
- depletion of the stratospheric ozone layer, in kg CFC-11;
- acidification of land and water sources, in moles H+ or kg SO2;
- eutrophication, in kg nitrogen or kg phosphate;
- formation of tropospheric ozone, in kg NOx, kg O3 eq, or kg ethene; and
- depletion of nonrenewable energy resources, in MJ.

For credit achievement calculation, products sourced (extracted, manufactured, purchased) within 100 miles (160 km) of the project site are valued at 200% of their base contributing cost.

**EP* Option2**: Purchase 75%, by cost, of permanently installed building products that meet the required attributes.

*EP: Requirements for Exemplary Performance (see Innovation LEED category)

**Example**

N/A

**Support Documentation**

- “FINSA TMA” Environmental Product Declaration
- Regional sourcing: For further information, contact with p.lopez@finsa.es

**Reference Standards**

- ISO 14021-1999
- ISO 14025-2006
- ISO 14040-2006
- ISO 14044-2006
- EN 15804
- ISO 21930-2007
- 16 CFR 260.7
MR Building product disclosure and optimization - sourcing of raw materials (NC, CS, SNC, RNC, HC, HNC, DCNC, WNC)

**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 verified to have been extracted or sourced in a responsible manner.

**Compliance information**

**FSC Certified**
The FINSA PB agrifiber wood boards are FSC certified (Certificate No. TT-COC-003279). Therefore contributes 100% to the fulfillment of option 2 of the credit.

**Recycled Content**
All of FINSA PB composite wood boards indicated in the table below have the recycled content indicated, contributing to this credit requirements:

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>RAW MATERIAL</th>
<th>RECYCLED CONTENT POST CONSUMER</th>
<th>RECYCLED CONTENT PRE CONSUMER</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIMAPAN (Finsa Santiago)</td>
<td>90%</td>
<td>14%</td>
<td>11%</td>
</tr>
<tr>
<td>SUPERPAN (Finsa Nelas)</td>
<td>90%</td>
<td>25%</td>
<td>2%</td>
</tr>
<tr>
<td>FIMAPAN (Finsa Cella)</td>
<td>90%</td>
<td>63%</td>
<td>13%</td>
</tr>
</tbody>
</table>

Table 01 on page 7 provides the location of FINSA's points of extraction and manufacturing facilities. This product may be counted as 200% of its value towards MRc2 Building product disclosure and optimization - sourcing of raw materials if the products' sourcing is less than 160km of the project site.

**LEED Requirements**

**Option 1. Raw material source and extraction reporting**
Use at least 20 different permanently installed products from at least five different manufacturers that have publicly released a report from their raw material suppliers which include raw material supplier extraction locations, a commitment to long-term ecologically responsible land use, a commitment to reducing environmental harms from extraction and/or manufacturing processes, and a commitment to meeting applicable standards or programs voluntarily that address responsible sourcing criteria.

- Products sourced from manufacturers with self-declared reports are valued as one half (1/2) of a product for credit achievement.
- Third-party verified corporate sustainability reports (CSR) which include environmental impacts of extraction operations and activities associated with the manufacturer’s product and the product’s supply chain, are valued as one whole product for credit achievement calculation. Acceptable CSR frameworks include GRI, OECD Guidelines for Multinational Enterprises, U.N. Global Compact- Communication of Progress and ISO 26000: 2010 Guidance on Social Responsibility.

EP* Option 1. Source at least 40 products from five manufacturers.
Opción 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.

- Extended producer responsibility.
- Bio-based materials
- FSC certified wood products.
- Materials reuse.
- Recycled content.

For credit achievement calculation, products sourced (extracted, manufactured, and purchased) within 100 miles (160 km) of the project site are valued at 200% of their base contributing cost.

EP* Option 2. Purchase 50%, by cost, of the total value of permanently installed building products that meet the responsible extraction criteria.

*EP: Requirements for Exemplary Performance (see Innovation LEED category)

Example

N/A

Support Documentation

- **FSC “FINSA FSC TT-COC-003279” Certificate**
- Recycled content: For further information contact with p.lopez@finsa.es
- Regional sourcing: For further information, contact with p.lopez@finsa.es

Reference Standards

- Global Reporting Initiative (GRI) Sustainability Report: globalreporting.org/
- U.N. Global Compact, Communication of Progress: unglobalcompact.org/cop/
- Sustainable Agriculture Network: sanstandards.org
- ASTM Test Method D6866: astm.org/Standards/D6866.htm
- Environmental Claims (Type II Environmental Labeling): iso.org/iso/catalogue_detail.htm?csnumber=23146
MR Building product disclosure and optimization - material ingredients (NC, CS, SNC, RNC, HC, HNC, DCNC, WNC)

**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 information**

Option 1:
FINSA reports the material ingredient to 0.1%, indicating the level of risk (Hazard screen) according to the program "Globally Harmonized System of Classification and Labeling of Chemicals rev.6 (2015) (GHS)"

Option 2:
FINSA products do not contain any substance (quantities > 100ppm) indicated in the REACH Authorization list, Restriction list and SVHC candidate list. Therefore it will count towards 100% of a product.

Table 01 on page 7 provides the location of FINSA’s points of extraction and manufacturing facilities. This product may be counted as 200% of its value towards MRc2 Building product disclosure and optimization - material ingredients if the products’ sourcing is less than 160km of the project site.

**LEED Requirements**

Option 1. Material ingredient reporting (1 point)
Use at least 20 different permanently installed products from at least five different manufacturers that demonstrate their chemical inventory of the product to at least 0.1% (1000 ppm), according to any USGBC approved program (ingredients inventory, C2C, etc.).

EP* Option 1: Purchase at least 40 permanently installed building products that meet the credit criteria.

Option 2. Material ingredient optimization (1 point)
Use products that document their material ingredient optimization, according to any USGBC approved program (GreenScreen v1.2, C2C, REACH declaration, etc), for at least 25%, by cost, of the total value of permanently installed products in the project.

For credit achievement calculation, products sourced (extracted, manufactured, and purchased) within 100 miles (160 km) of the project site are valued at 200% of their base contributing cost.

EP* Option 2: Purchase at least 50%, by cost, of permanently installed building products that meet the credit criteria.

*EP: Requirements for Exemplary Performance (see Innovation LEED category)

**Example**
N/A
Support Documentation

REACH FINSA ingredients declaration

Reference Standards

- Chemical Abstracts Service: cas.org/
- Health Product Declaration: hpdcollaborative.org/
- Cradle-to-Cradle CertifiedCM Product Standard: c2ccertified.org/product_certification
- Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): echa.europa.eu/support/guidance-on-reach-and-clp-implementation
- GreenScreen: cleanproduction.org/Greenscreen.v1-2.php
MR Environmentally preferable products (HM and MMR)

**Intent**
To increase demand for products or building components that minimize material consumption through recycled and recyclable content, reclamation, or overall reduced life-cycle impacts.

**Compliance information**
- **FSC Certified**
The FINSA PB composite wood boards are FSC certified (Certificate No. TT-COC-003279).

**Recycled Content**
The composite wood boards FINSA SUPERPAN (Finsa Nelas) and FIMAPAN (Finsa Cella), have recycled content, contributing to this credit (see MR Product disclosure and optimization – sourcing of raw material).

**Local Material**
Table 01 on page 7 provides the location of FINSA’s points of extraction and manufacturing facilities. This product may be counted as 200% of its value towards MRc Environmental preferable products if the products sourcing is less than 160km of the project site.

**LEED Requirements**
Use building component materials that meet one or more of the criteria below.
- Local production (160km) for framing, aggregate for concrete and foundation and drywall or interior sheathing
- 25% reclaimed material, including salvaged, refurbished, or reused materials
- 25% postconsumer or 50% pre-consumer content
- Wood products Forest Stewardship Council (FSC) Certified, or USGBC-approved equivalent.
- Bio-based products meeting the Sustainable Agriculture Network's Sustainable Agriculture Standard.
- Concrete that consists of at least 30% fly ash or slag used as a cement substitute and 50% recycled content or reclaimed aggregate OR 90% recycled content or reclaimed aggregate.
- Products purchased from a manufacturer that participates in an extended producer responsibility program or is directly responsible for extended producer responsibility.

**EP**: To purchase a large number of products that meet the requirements.

*EP: Requirements for Exemplary Performance (see Innovation LEED category)

**Example**
N/A

**Support Documentation**
- **FSC “FINSA FSC TT-COC-003279” Certificate**
- Recycled content: For further information contact with p.lopez@finsa.es
- Regional sourcing: For further information, contact with p.lopez@finsa.es

**Reference Standards**
- Forest Stewardship Council: fsc.org
- Sustainable Agriculture Network, Sustainable Agriculture Standard: sare.org
CATEGORY
INDOOR ENVIRONMENTAL QUALITY (IEQ)

IEQ Low-emitting materials
(NC, CS, SNC, RNC, HC, HNC, DCNC, WNC, HM, MMR)

Intent
To reduce concentrations of chemical contaminants that can damage air quality, human health, productivity, and the environment.

Compliance information
Fimaplast boards are labeled A+ according to the French legislation for VOCs, approved by USGBC for the achievement of credit requirements for wood composites.

LEED Requirements
Composite Wood must comply with Composite Wood Evaluation requirements defined by USGBC.

Composite wood must be documented to have low formaldehyde emissions that meet the California Air Resources Board ATCM for formaldehyde requirements for ultra-low-emitting formaldehyde (ULEF) resins or no added formaldehyde resins.

For projects outside the U.S., composite wood must be documented not to exceed a concentration limit of 0.05 ppm of formaldehyde (0.06 mg/m²-h when expressed as emission rate) as tested following either EN-717-1:2004, following ISO 16000-3: 2010, ISO 16000-6: 2011, ISO 16000-9: 2006, ISO 16000-11:2006, or following CEN/TS 16516: 2013 either in conjunction with AgBB or with Belgian or French legislation on VOC emission class labeling.

LEED BD+C defines two available options:
- Option 1: Achieve the threshold level of compliance with emissions and content standards for the number of product categories listed in Table 2. Points are awarded according to the number of categories that meet the requirements.
- Option 2: If some products in a category do not meet the criteria, project teams may use the budget calculation method (weighted calculation).

Products that are inherently nonemitting sources of VOCs are considered fully compliant without any VOC emissions testing if they do not include integral organic-based surface coatings, binders, or sealants.

Healthcare and schools projects have also extra requirements for batt insulation and some Exterior applied products, such as adhesives, sealants, coatings, roofing, and waterproofing materials applied on site.

EP* Option 1: Earn all points and reach 100% of products.
EP* Option 2: Reach 100% of products.

*EP: Requirements for Exemplary Performance (see Innovation LEED category)

Example
N/A

Support Documentation
- COVs French label A+ “FINSA_FIMAPLAST French VOC Label A+”
Reference Standards

- CDPH Standard Method v1.1–2010: cal-iaq.org
- ISO 17025: iso.org
- ISO Guide 65: iso.org
- AgBB—2010: umweltbundesamt.de/produkte-e/bauprodukte/agbb.htm
- ISO 16000 parts 3, 6, 7, 11: iso.org
- South Coast Air Quality Management District (SCAQMD) Rule 1168: aqmd.gov
- South Coast Air Quality Management District (SCAQMD) Rule 1113: aqmd.gov
- Canadian VOC Concentration Limits for Architectural Coatings: ec.gc.ca/lcpe-cepa/eng/regulations/detailReg.cfm?intReg=117
- Hong Kong Air Pollution Control Regulation: epd.gov.hk/epd/english/environmentinhk/air/air_maincontent.html
- CARB 93120 ATCM: arb.ca.gov/toxics/compwood/compwood.htm
- ANSI/BIFMA e3–2011 Furniture Sustainability Standard: bifma.org
CATEGORY
CALIDAD DEL AMBIENTE INTERIOR (IEQ)

IEQ Indoor air quality assessment
(NC, CS, SNC, RNC, HC, HNC, DCNC, WNC)

**Intent**
To establish better quality indoor air in the building after construction and during occupancy.

**Compliance information**
FINSA's Fimaplast products, due to their low Volatile Organic Compounds (VOC) emissions, meet the credit requirements described above for low-emitting materials. Due to their low emissions of toxic products, they contribute to the good quality of the interior environment and therefore also to meet the credit requirements.

**LEED Requirements**
Option 2: Indoor air quality (IAQ) testing after construction, using ASTM standard methods, EPA compendium methods, or ISO methods.

Laboratories that conduct the tests for chemical analysis of formaldehyde and volatile organic compounds must be accredited under ISO/IEC 17025 for the test methods they use.

Following pollutants must be analyzed: Formaldehyde, PM10 and PM 2.5 particulates, ozone, VOCs and carbon monoxide.

Demonstrate that contaminants do not exceed the LEED required concentration levels.

**Example**
NA

**Support Documentation**
*Etiqueta francesa de COVs “FINSA_FIMAPLAST French VOC Label A+”*

**Reference Standards**
- ISO 16000-3, Indoor air—Part 3: Determination of formaldehyde and other carbonyl compounds in indoor air and test chamber air—Active sampling method: iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=51812
- ISO 16000-6, Indoor air—Part 6: Determination of volatile organic compounds in indoor and test chamber air by active sampling on Tenax TA sorbent, thermal desorption and gas chromatography using MS or MS-FID: iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=52213
- ISO 7708 Air quality—Particle size fraction definitions for health-related sampling:
- ISO 13964 Air quality—Determination of ozone in ambient air—Ultraviolet photometric method: [iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=235]
ID Innovation
(NC, CS, SNC, RNC, HC, HNC, DCNC, WNC)

**Intent**
To encourage projects to achieve exceptional or innovative performance.

**Compliance information**
FINSA can contribute to meet the requirements of exemplary performance in the following credits:
- MR Building life-cycle impact reduction
- MR Building product disclosure and optimization - Environmental Product Declarations
- MR Building product disclosure and optimization - sourcing of raw materials
- MR Building product disclosure and optimization - material ingredients
- MR Environmentally preferable products
- EQ Low-emitting materials

**LEED Requirements**
Option 3: Exemplary Performance – EP
Achieve exemplary performance in an existing LEED v4 prerequisite or credit that allows exemplary performance, as specified in the LEED Reference Guide, v4 edition.

Exemplary Performance thresholds have been defined in this document as EP, in each specific credit.

**Example**
NA

**Support Documentation**
See requirements defined as “EP”, in each specific credit.

**Reference Standards**
See specifics credits.
HEALTH AND WELLBEING

SyB 2 – SyB 8 Indoor air quality (BREEAM ES Nueva Construcción 2015 and BREEAM ES Vivienda 2011 respectively)

MATERIALS

MAT 1 Life cycle impacts (BREEAM ES Nueva Construcción 2015)
MAT 3 Responsible sourcing of materials (BREEAM ES Nueva Construcción 2015)
MAT 8 Low environmental Impact Materials (BREEAM ES Vivienda 2011)
MAT 9 Responsible sourcing of materials – building basic elements (BREEAM ES Vivienda 2011)
MAT 10 Responsible sourcing of materials – finishes (BREEAM ES Vivienda 2011)

INNOVATION

INNOVATION (BREEAM ES Nueva Construcción 2015 y BREEAM ES Vivienda 2011)
CATEGORÉ
HEALTH AND WELLBEING

REQUISITE DOCUMENTS
BREAM ES

SyB 2 – SyB 8 Indoor air quality
(BREEAM ES NUEVA CONSTRUCCIÓN 2015 and BREEAM ES VIVIENDA 2011 Respectively)

Intent
To recognise and encourage a healthy internal environment through the specification and installation of appropriate ventilation, equipment and finishes.

Compliance information
Finsa’s composite PB wood boards have low VOCs emissions. They are tested according to the European Standard EN ISO 12460-5 (accepted by BREEAM ES) and classified E1 according to UNE-EN 13986-2006.
These panels do not contain regulated wood preservatives, They therefore contribute to meet the credit requirement.

BREEAM Requirements
BREEAM evaluate, among other aspects, the selection of finishing materials with low VOC emissions.

BREEAM ES Nueva Construcción 2011 Wood panels requirements are:
• Option 1:
  • Performance requirements: Formaldehyde E1 class.
  • Compliant testing standards: UNE-EN 717-1:2006. Wood-based panels - determination of formaldehyde release - part 1: formaldehyde emission by the chamber method.
• Option 2:
  o Performance requirements: Formaldehyde level of 0.1mg/m3.
  o Compliant testing standards:
    ▪ UNE-EN ISO 16000-9:2006. Indoor air - Part 9: Determination of the emission of volatile organic compounds from building products and furnishing - Emission test chamber method, or
    ▪ Emission testing method for California Specification 01350 (Californian Department for Public Health CDPH) – Standard method for the testing and evaluation of VOC emissions from indoor sources using environmental chambers
    ▪ Note: For either method the resultant emission/surface area obtained from the chamber test method must be extrapolated to predict what the emissions would be in a theoretical model room (as detailed in the standard) and this extrapolated emission rate compared with the required formaldehyde level of 0.1mg/m3.
• Manufacturer also to confirm: The absence of regulated wood preservatives.

**BREEAM ES Vivienda 2011** Wood panels requirements are:

• Performance requirements: Formaldehyde E1 class
• Test requirements: UNE EN 717-1:2006. Wood-based panels - determination of formaldehyde release - part 1: formaldehyde emission by the chamber method

Manufacturer also to confirm: The absence of regulated wood and minimum content.

**Exemplary level criteria**

**BREEAM ES Nueva Construcción:**

• Comply with Minimising sources of air pollution and volatile organic compound (VOC) emission levels (products) BREEAM ES requirements
• The formaldehyde emission levels have been measured and found to be less than or equal to 0.06mg/m3 (1 point) or 0.01mg/m3 (2 points) air, in accordance with the approved testing standards

**BREEAM ES Vivienda:**
All material categories evaluated by BREEAM, must meet the requirements.

**Example**
NA

**Support Documentation**

**Declaration E1**

Reference Standards

• UNE-EN 13300:2002.
• UNE-EN 717-1:2006.
• UNE-EN 233:2000, sección 5.7.
• UNE-EN 233:2000, sección 5.7.
• UNE 57162/1M: 1997.
• UNE-EN 259-1:2002, sección 4.5-4.7
**MAT1 – Life cycle impacts**
*(BREEAM ES NUEVA CONSTRUCCIÓN 2015)*

**MAT8 – Low environmental Impact Materials**
*(BREEAM ES VIVIENDA 2011)*

**Intent**
To recognise and encourage the use of life cycle analysis tools and, therefore, the specification of construction materials with a low environmental impact (including embodied carbon) over the full life cycle of the building.

**Compliance information**

**Ecolabels Type I, II y III:**
PB FINSA wood panels have the EPD "Particleboards and Melamine Faced Particleboards" that contribute to the credit requirement for option 1. The EPD, with registration number S-P-00272 and reference number ECO EPD 00000497, is valid until 26.01.2022.

**Life Cycle Assessment:**
The impacts evaluated in the EPD can be used for the development of the LCA contributing to option 2. The data of the EPD are verified with the ISO 15804 standard and have numerous available indicators of environmental impacts, such as generation of waste, water consumption and energy consumption.

**BREEAM Requirements**

**Ecolabels Type I, II and III:**
- **BREEAM ES Vivienda:** Specify products with ecolabels Type I, II or III.
- **BREEAM ES Nueva Construcción:** Specify products with Environmental Product Declaration (Ecolabel Type III).

**Environmental Life Cycle assessment (LCA):**
Conduct a life-cycle assessment of the building’s elements, employing a life cycle analysis tool (LCA), according to BREEAM specifications.

**Exemplary level criteria:**
- **BREEAM ES Vivienda:** As a result of the LCA, materials with less environmental impacts have been chosen, in at least 6 building elements.
- **BREEAM ES Nueva Construcción:** Carry out a rigorous LCA, including most building elements.

**Example**
NA

**Support Documentation**
†FINSA TMA” Environmental Product Declaration

**Reference Standards**
- UNE-EN 15978:2012.
CATEGORY MATERIALS

MAT3 – Responsible sourcing of materials
*(BREEAM ES NUEVA CONSTRUCCIÓN 2015)*

MAT9 – Responsible sourcing of materials – building basic elements

MAT10 – Responsible sourcing of materials – finishes
*(BREEAM ES VIVIENDA 2011)*

**Intent**
To recognise and encourage the specification of responsibly sourced materials for building elements.

**Compliance information**
FINSA PB wood boards are usually in vertical interior partitions, as well as in interior finishes. These panels have the FSC certificate number TT-COC-003279, thus contributing to this prerequisite.

The FSC Chain of Custody certificate corresponds to the level of certification of responsible sourcing 1, according to the BREEAM classification, which is the highest possible level.

**BREEAM Requirements**
*BREEAM ES Nueva Construcción* Pre-requisite:
All timber used on the project is 'Legally harvested and traded timber'.

Requisite:
The available points can be awarded where the applicable building and hard landscaping materials are responsibly sourced in accordance with the BREEAM methodology.

To justify compliance, each product must be certified in accordance with any of the Responsible Sourcing Certification Scheme recognized by BREEAM.

For each applicable material type, determine the tier rank based on the rigour of responsible sourcing.

*BREEAM ES Nueva Construcción* Exemplary level criteria:

- BREEAM responsible sourcing materials requirements are exceeded.
- 70% of the available points are reached.

**Example**
NA

**Support Documentation**
*FSC “FINSA FSC TT-COC-003279” Certificate*

**Reference Standards**
- ISO 14001
**CATEGORY**

**INNOVATION**

**INNOVATION (BREEAM ES NUEVA CONSTRUCCIÓN 2015, BREEAM ES VIVIENDA 2011)**

**Intent**
To support innovation within the construction industry through the recognition of sustainability related benefits which are not rewarded by standard BREEAM issues.

**Compliance information**
FINSA can contribute to meet the requirements of exemplary level criteria in the following credits:
- SyB2 – SyB8, Indoor air quality.
- MAT1, Life cycle impacts.
- MAT3, Responsible sourcing of materials
- MAT8, Low environmental Impact Materials

**BREEAM Requirements**
Up to a maximum of 10 credits are available in aggregate from a combination of the following:

**Exemplary level of performance in existing BREEAM issues**
Where the building demonstrates exemplary performance by meeting defined exemplary level performance criteria in one or more of BREEAM assessment issues.

**Approved innovations**
One innovation credit can be awarded for each innovation application approved by BREEAM ES, where the building complies with the criteria defined within an Approved Innovation Application Form.

**Example**
NA

**Support Documentation**
See specifics Requisites.

**Reference Standards**
NA