

**Disclaimer**

This sheet is intended for designers, specifiers and other members of construction project teams wishing to reuse this building material or product. It is part of a collection of sheets aimed at bringing together the available information to date that is likely to facilitate the reuse of building materials and products.

This sheet has been produced by Rotor vzw/asbl within the framework of the Interreg FCRBE project - Facilitating the Circulation of Reclaimed Building Elements, supported by the entire project partnership. Sources of information include the experience of reclamation dealers and involved project partners, lessons learned from exemplary projects, available technical documentation, etc.

The sheets have been produced between 2019 and 2021. As the reclamation sector is evolving, some information, notably regarding pricing and availability, may change over the time. When the text refers to European standards, it is up to the project team to refer, if necessary, to their national implementations and local specificities.

It is important to note that the information presented here is not exhaustive or intended to replace the expertise of professionals. Specific questions are always project related and should be treated as such.

The complete collection of sheets (including the introductory sheet) is freely available from different reference websites (a.o. [opalis.eu](http://opalis.eu), [nweurope.eu/fcrbe](http://nweurope.eu/fcrbe), [futureuse.co.uk](http://futureuse.co.uk)).

Non-exhaustive directories of dealers in reclaimed building materials are available on [www.opalis.eu](http://www.opalis.eu) and [www.salvoweb.com](http://www.salvoweb.com).

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Interreg FCRBE partnership: Bellastock (FR), the Belgian Building Research Institute / BBRI (BE), Brussels Environment (BE), the Scientific and Technical Center of Building / CSTB (FR), Confederation of Construction (BE), Rotor (BE), Salvo (UK) and University of Brighton (UK).

The information contained in this document does not necessarily reflect the position of all the FCRBE project partners nor that of the funding authorities.

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### Material description

**Barn wood, more commonly referred to as “barnwood”, is a classic on the reclamation market. According to several specialist suppliers established in Belgium and the Netherlands, this product has been gaining popularity since the early 2000s. The term “barnwood” commonly refers to wooden planks resulting from the dismantling of old agricultural constructions (referred to broadly as “barns”), mainly imported from Eastern Europe and North America. Having become particularly stable and resistant, this wood, marked by the passage of time and bad weather, is particularly well suited to reclamation for façade cladding (exterior cladding), wall cladding (interior panelling) and the design of certain room furnishings.**

Some batches are of a historical character. It is not uncommon for them to come from trees that have been felled in the primary forests of Europe and America. In some cases, the barns from which they came have played an important role in local history. In general, importers of barnwood are in direct contact with local demolishers, but the conditions under which dismantling takes place are not always transparent.

The name “barnwood” is sometimes used by some suppliers to refer to other types of wood planks with an aged appearance, such as floors from old French houses, used scaffolding planks, wood from American fruit crates, pallets or even railroad sleepers. In general, these are also quality woods, but their original characteristics and uses may differ from those of barnwood, which may have implications for possible new uses. In case of doubt about the origin or the conditions under which the elements were disassembled, it is recommended to contact the supplier for further information.

By nature, the original batches are generally made up of boards with heterogeneous characteristics. The quality of the sorting and treatments offered depends heavily on the supply chain and the operations supported by professional suppliers. The batches offered for sale are generally distinguished by the following characteristics:

→ *Geographic origin.* Unlike other parts of the world, Western Europe has partially lost interest in timber construction over the past century. Therefore, much of the barnwood available on the reclamation market is imported from more distant regions, notably Eastern Europe and North America. The Alpine region also has a specific market.

→ *Species.* Barnwood imported from North America is often very old (100-150 years or more) and consists mainly of American white oak, elm or other coniferous species (yellow pine, hemlock, redwood, red cedar, etc.). The boards dismantled in Eastern Europe and the Alpine region are generally over 50 years old and are most often made of coniferous wood (pine, spruce) or, more rarely, of European oak. Most of the time, the batches offered for sale consist of boards of the same species.

→ *Original application.* The boards are generally sorted during dismantling based on their original application (exterior cladding, interior panelling, floors, etc.) and grouped according to their appearance.

→ *Dimensions.* Very variable according to the batches but also between the boards of the same batch. Typical dimensions are in the order of 15 - 50 mm thick, 100 - 400 mm in width and 0.8 - 5 m in length - although some items have dimensions that deviate from these indicative measurements. More or less pronounced typical deformations (warped or distorted boards) can be observed. Some suppliers carry out sawing, planing, edging, etc. to give more uniform dimensions to the boards in a batch.

→ *Appearance.* For decades, wood has been exposed to intensive use and changing climatic conditions, which gives its surface a very particular and unique patina: subtle differences in colour, traces of previous paint or stain, traces of nails and of hardware, presence of knots and light cracks, accentuation of wood grooves, dull edges, etc.

→ *Finishing treatment.* For many applications, barnwood does not require any treatment. However, some suppliers offer brushing, sanding, planing, sandblasting services, etc. potentially useful for some applications.



Variability of barnwood planks

**Material reclamation**

Since it is mainly imported, barnwood is mainly available from specialist dealers and can sometimes supplement the offer of new timber dealers. The involvement of professionals ensures the smooth running of the following operations:



Source: Pixabay

→ **Dismantling.** Even if they do not carry out this operation themselves, professional suppliers usually put in place the necessary conditions for a supply of carefully disassembled quality boards. Most of the time, dismantling barnwood is done manually in order to preserve the integrity of the elements. A first step in selecting the elements usually takes place on site. Wood with significant defects (rot, traces of insects, large cracks, deformations, etc.). The presence of knots is usually not an exclusion criterion. The boards can also have the nails removed and be grouped together in batches based on their original application (cladding, panelling, flooring), their respective dimensions and their appearance.

→ **Sorted by the supplier.** Certain specialized suppliers carry out a second sorting on the batches that they import, based on the same criteria outlined above. In particular, some check for the presence of nails and other metal elements using a metal detector. This point of attention is essential to avoid damaging the tools necessary for a possible subsequent transformation.

→ **Drying.** According to the hygrometric state of the wood. The elements are generally dried naturally in a shed, taking the necessary storage arrangements (spacing between the elements, no contact with the ground, ventilation, heating, etc.). Artificial kiln drying can be done in some cases in order to reduce the humidity level to around 12%. The objective is, on the one hand, to ensure that the timber deforms little after installation (depending on the requirements of the application), on the other hand, to eliminate insects and fungi that would still be present in the boards.

→ **Operations.** Depending on the specifications specific to each project, the batches can be delivered raw or go through certain specific operations. These have repercussions on the price but make it possible to obtain a product perfectly suited to the requirements and specificities of its new use.

- **Superficial cleaning:** with water or by light mechanical brushing, in order to preserve the patina.
- **Sanding and sandblasting:** these operations can strongly affect the patinated layer.
- **Planing:** some suppliers offer it in order to obtain batches of boards of identical thickness. Planing is generally carried out on the non-patinated side.
- **Edging:** in order to obtain boards with a uniform width. The blunt appearance of the original edges disappears during this operation.
- **Sawing:** in order to obtain boards of uniform length or to eliminate unwanted sections.
- **Machining:** altering the boards' profile in order to correspond to the needs of the installation. The machining can consist, among other things, in providing the boards with a system of grooves and tongues to facilitate assembly, in setting up a trapezoidal profile for horizontal exterior cladding, in chamfering the edges, etc.
- **Preservation and impregnation treatment:** in order to optimize the durability of timber outdoors and/or give it fire-retardant, oil-repellent and water-repellent properties. Several processes coexist, for example soaking, sprinkling, brushing, in autoclave, heat treatment, etc. They are governed by standards (or technical opinions) and use recommendations. This operation can, to some extent, affect the original appearance and patina. Professional advice is recommended, especially if the wood has undergone this type of treatment before or if a topcoat is present. He will also be able to inform you about the possible toxicity of the products.

- **Finishing:** the wood can be left as it is or receive a finishing coat (varnish, waxes, oils, stains, paint, etc.)

→ **Storage.** The boards are stored horizontally and stacked on pallets, properly strapped in and protected from external moisture. Good ventilation and a heated environment help to control the humidity of the wood.

→ **Transport and delivery.** All necessary precautions must be taken during transport and delivery (strapping, means of handling, protection against rain, loading, etc.).



Machining of boards to obtain a tongue/groove assembly profile



Storage of batches of barnwood planks

**Truly Reclaimed Label**

As part of the European FCRBE project, to which these sheets are annexed, the organization SALVO Ltd. (UK) is working on the development of a "Truly Reclaimed" label, making it possible to certify the authentically recovered origin of materials (as opposed to artificially used materials). This label should see the light of day very soon for reclaimed wood products.



**Applications and installation**

**Reclaimed barnwood lends itself to a wide variety of applications: exterior cladding, interior panelling and furniture design. Given the strong heterogeneity of the batches of barnwood planks, their reclamation as floorboards is not particularly recommended, unless major transformations of the material are planned to meet the requirements relating to this application. For more information on reclaimed floors, please refer to the dedicated sheet.**

Leaving some latitude on the dimensions, texture, colour of the wood and all the non-essential characteristics often makes it easier to find a batch on the reclamation market. This approach generally requires adopting more flexible design and installation strategies, which make it possible to highlight the heterogeneity of the batches while respecting the essential requirements. For example: laying as free-length cladding, laying as panelling of varying thickness, etc.

Despite their extensive knowledge of the materials and the valuable advice they can give, barnwood dealers generally do not certify all of the characteristics of the items they supply. On the other hand, some provide guarantees on aspects such as the type of wood delivered, the dimensions of the elements, the maximum humidity level, the condition of the wood (without metal parts, mould, cracks, etc.) or even on its origin (some resellers thus affix the *FSC recycled* label - or an equivalent - which certifies that the wood comes from the dismantling of buildings and not from the cutting of trees).

As a general rule, the choice of boards must take into account the expected stresses (see "characteristics and fitness for use"). It is therefore advisable to refer to the standards of use of the products (for example EN 14915: Wood panelling and cladding - characteristics, requirements and marking), to the rules of practice in force and to the installation standards. By way of example, the points of attention relating to these applications are:



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→ For cladding use

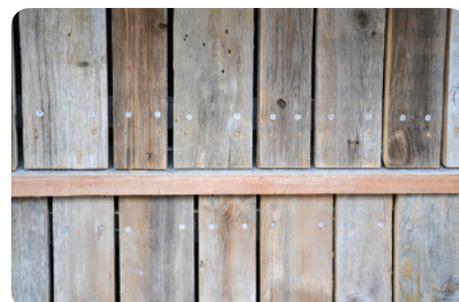
- The wood species must have natural durability characteristics compatible with outdoor use or be treated appropriately (preservation, heat treatment, etc.).
- The boards are laid horizontally or vertically, with a suitable profile limiting water stagnation, for example: straight profile for vertical openwork installation, "tongue and groove" profile for closed installation, trapezoidal profile (dual slope) for horizontal openwork installation, etc. In general, the vertical slats drain rainwater more quickly. The design details are also very important in order to avoid water traps (roof overflows, butt jointed boards, minimum distance to the ground, etc.).
- Barnwood batches often consist of boards of varying dimensions which may have certain deformations (buckling, warping, etc.). While it is generally possible to adapt installation by grouping boards of similar width and thickness on the same line, it can be more complicated to work with strongly deformed variations. One solution may be to demand precise dimensional characteristics or to provide for a transformation of the material (planing, edging, machining, etc.).
- In general, the wood intended for cladding must have a minimum thickness of 15 to 18 mm.
- To avoid subsequent deformations, a maximum wood moisture content of  $15 \pm 3\%$  is recommended for installation.



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Installation of 2600 m<sup>2</sup> of barnwood cladding from Eastern Europe, Institute of Botany of the ULg, Liège (BE) © André Warnier

<https://opalys.eu/fr/projets/linstitut-de-botanique-de-lulg>



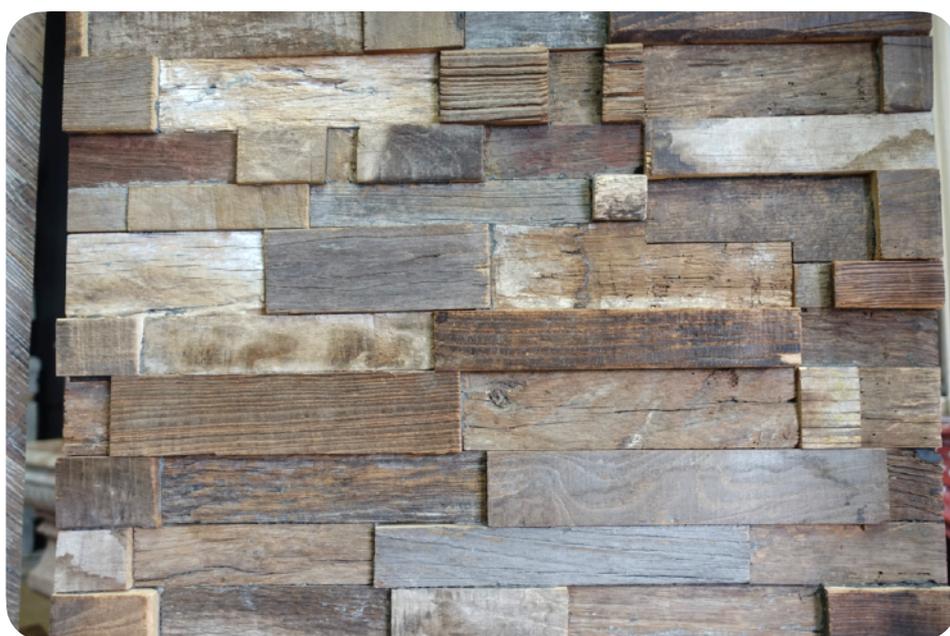
- The other points of attention are similar to the design of new cladding: type of support (wood frame, masonry, etc.), single or double fixing frame, choice and size of battens, method of fixing and centre distance of battens, installation of drip edges at lintel level, junction of incoming and outgoing angles, edge junction, anti-rodent grid, nails and screws (ringed, stainless steel, galvanized steel, dimension, etc.), rain screen, air gap and ventilation, insulation from the outside, construction tolerances, specific maintenance, flame-retardant, water-repellent, oil-repellent finishing products or processes, etc.
- *For use in panelling and interior furnishings*
- Most types of wood are suitable.
- It should be ensured that there are no insects which could spread to other wooden elements. A visual inspection of the boards is recommended at the time of installation. For greater safety, it is also possible to demand dried boards, or even to provide an insecticide treatment.
- A maximum wood moisture content of  $10 \pm 3\%$  is recommended during installation in order to guarantee the dimensional stability of the boards. Acclimatisation of the boards before installation is recommended (1 to 2 weeks).
- For indoor use, care should be taken to ensure that the wood has not been treated or exposed to toxic substances during its previous use, particularly where there is a risk of food contact. In the absence of information on this subject, it is best to stick to the "precautionary principle". (see further on: Hazardous substances and precautions).
- In the event of applying a new topcoat (stain, varnish, etc.), it is recommended to use products that respect the environment and the indoor air quality.
- The reaction to fire class can be determined with regard to the type of wood and the thickness of the boards. Flame retardant treatments also make it possible to improve this characteristic.
- The other points of attention are: type of support, method of fixing, nails and screws (ringed, stainless steel, galvanized steel, dimension, etc.), air space and ventilation, construction tolerance, specific maintenance, fire-retardant, water-repellent, oil-repellent finishing products or processes, etc.

#### Derivative product

*Barnwood is sometimes used for the manufacture of calibrated multi-ply panels. Following a series of transformations, the old planks are assembled with new wood to obtain a hybrid product that combines the stability of the classic panel with the particular aesthetics of barnwood. These panels are generally well suited for furnishing design (making kitchens, doors, cupboards, drawers, etc.).*



*Barnwood veneer on plywood panel.  
© Rotor © Atmosphère Bois*



*Multi-species interior panelling with boards of variable dimensions.*

#### Quantities

*It is important to purchase a sufficient quantity of planks from the outset. As each batch has unique aesthetic characteristics, it is not certain that an identical model will still be available with a subsequent order. In general, for both cladding and panelling, it is advisable to order a surplus of 10 to 15% depending on the condition of the batch and the design strategy chosen. To increase the chances of meeting the offer available on the reclaimed market, the specifier can choose to split the batch with different models.*



**Characteristics and fitness for use**

The reuse of barnwood planks generally requires certain parameters to be mastered in order to comply with the requirements relating to the intended application. In the case of cladding and panelling, experience as well as normative documents (for example the harmonized standard EN 14915) and techniques relating to wood and new wood-based materials make it possible to highlight a series of characteristics and recommendations applicable to barnwood (table 2).

For ease of reading, the table 1 shows some relevant parameters for some common barnwood species.

Table 1: Characteristics of the most common types of wood used for solid wood flooring

Species	Durability class (1)	Sensitivity to insects (1)	Density [kg/m <sup>3</sup> ] (2)	Dimensional stability (3)
American white oak and European oak <i>Quercus spp., Quercus robur</i>	II - III	Sensitive	700	Moderately stable to poorly stable
Larch <i>Larix spp.</i>	III - IV	Sensitive	600	Moderately stable
Yellow pine <i>Pinus spp.</i>	III - IV	Sensitive	500	Stable
Scots pine <i>Pinus sylvestris</i>	III - IV	Not very sensitive	500	Moderately stable
Spruce <i>Picea abies</i>	IV	Sensitive	450	Moderately stable
Western hemlock <i>Tsuga heterophylla</i>	IV	Sensitive	450	Moderately stable
Californian redwood <i>Sequoia sempervirens</i>	II	Not very sensitive	400	Stable
Western red cedar <i>Thuja plicata</i>	II	Not very sensitive	370	Very stable

(1) This classification is only valid for heartwood and not sapwood (peripheral wood), for wood without protective treatment. In the case of barnwood previously used for cladding, it is very likely that all the sapwood has already disappeared. However, it is preferable to make sure of this by checking the batch or by inquiring about the previous use (see also "use class" below).

(2) For a reference humidity H = 15%.

(3) Ability of wood not to warp under the influence of variations in humidity and temperature.

Table 2: Other relevant characteristics to be assessed according to use and context

Characteristics	Comments
<b>Dimensional characteristics</b>	Closely linked to the type of wood, the drying and storage conditions, the degree of sorting of the elements, the transformations of the wood (edging, planing, etc.) and the uniformity of the batch. A visual or detailed examination can be sufficient to estimate it. If necessary, most suppliers are able to calibrate the width, length or thickness of the boards.  The actual dimensions of barnwood planks are influenced by swelling and shrinkage due to variations in moisture content.
<b>Geometry (flatness, bending, warping)</b>	These characteristics are closely linked to the degree of sorting of the planks and their original stress. A visual or detailed examination of the batch is often sufficient to estimate these aspects.
<b>Surface quality</b>	A visual or detailed examination of the batch is often sufficient to assess it. The quality of the surface must anticipate the desired degree of finish (raw, sanded, sandblasted, brushed, etc.) and acceptable aesthetic defects (knots, slight cracks, holes, etc.). The presence of traces of flaking paint must be assessed for interior applications or with a risk of food contact (see below Dangerous substances and precautions).
<b>Humidity level</b>	To avoid subsequent deformations, barnwood must be installed at a defined balanced moisture content (H = 15 ± 3% for cladding and H = 10 ± 3% for panelling). This parameter essentially depends on the drying and storage conditions of the wood. A check can be carried out by means of a moisture meter.

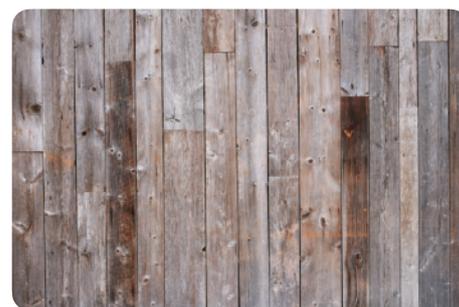


Characteristics	Comments
<b>Natural durability</b>	This characteristic evaluates the natural resistance of wood to attack by fungi. It is assessed according to the species and the type of wood (sapwood or heartwood), and makes it possible to determine the use class of barnwood planks. Under certain conditions, it is possible to increase the natural durability by means of preservation treatments adapted to the species, the specificities of the reclaimed material and the intended use. In this case, it is "conferred" durability.
<b>Use class</b>	The use class of the wood determines its appropriate uses (see table 3). The harmonised European standard EN 460 thus defines five classes of use of wood and the associated biological risks, and recommends the possible application of an adequate protective treatment according to the use and the class of natural durability of the wood used (see standards EN 350-2 and EN 335). For example, oak, californian red-wood or western red cedar (durability class 2) are ideal for façade cladding without additional preservation treatment.

Table 3: Classes of use and associated biological risks

Usage class	General use	Biological risks		Natural durability class of wood				
		Insects	Fungi	I	II	III	IV	V
1	Indoors, in the dry	Yes	No					
2	Indoors, or under shelter, not exposed to bad weather. Possibility of water condensation	Yes	Low					
3	Outside, above ground, exposed to bad weather	Yes	Yes					
4	Outside in contact with the ground and/or fresh water	Yes	Yes					
5	Immersed in salt water on a regular or permanent basis	Yes	Yes					

Treatment not necessary  
Treatment is recommended  
Treatment is necessary



Re-use of 800 m<sup>2</sup> of barnwood for exterior cladding and interior panelling. Quay01 (K-nal), Brussels (BE) © Jean-Paul Hermant architectes  
<https://opalis.eu/fr/projets/bardage-quay01-k-nal>



Barnwood cladding for a home and guest rooms (Cerftitude) (BE). © Benoit Lanis. Architecte: Atelier 4/5.  
<https://opalis.eu/fr/projets/cerftitude>



Characteristics	Comments
<b>Susceptibility to insects</b>	Some species of wood are more susceptible to insect attacks. It is advisable to check the condition of the boards before their installation, in order to avoid the risk of infestation and spreading to other wood-work. Artificially dried planks are less likely to be infested. If necessary, there are specific preservation or finishing treatments.
<b>Wood stability</b>	This performance characterizes the way in which wood behaves when subjected to significant variations in humidity. This notion integrates the importance of deformations ("wood movement") and the speed at which they take place. A stable wood species is likely to be more suitable for applications subject to large variations in humidity (see table above). However, having already worked a lot during its previous use, with barnwood it is commonly accepted that the impact of this parameter can be put into perspective, whatever the species. Design and installation details are also to be considered (sufficient clearance between the boards, air gap, dry wood, etc.)
<b>Mechanical performance</b>	The in-depth evaluation of mechanical performance is relevant in case of high static and/or dynamic loads. This evaluation is done on the scale of the construction system and not just the boards. This should be taken into account when designing highly stressed cladding.
<b>Water vapour permeability</b>	Not applicable if there is an air space between the panelling/cladding and the wall. Otherwise the water vapour resistance factor can be deduced from the density of the wood under consideration (see values tabulated in standard EN ISO 10456).
<b>Sound absorption</b>	This characteristic, relevant in interior use, is influenced by the shape and finish of the boards. The sound absorption coefficient can be assessed through tabulated values given in standard EN 14951.
<b>Thermal conductivity</b>	Relevant characteristic for indoor use only. Lambda ( $\lambda$ ) thermal conductivity (in W/(mK)) can be assessed using tabulated values from EN ISO 10456. It is essentially a function of the density and humidity of the wood.
<b>Reaction to fire</b>	<p>Specific requirements for the reaction to fire are determined by national regulations. These requirements depend, among other things, on the use of the premises (for example: private or community housing, emergency exits, terraces on flat roofs, etc.), on the height of the building (for the façade cladding) but also on the ability of users to evacuate the premises in the event of fire (senior citizens' residence, hospital, etc.). It is therefore important for the specifier to meet regulatory requirements in terms of reaction to fire by determining the materials and their method of implementation, with regard to the intended use.</p> <p>According to a European resolution (Resolution 2006/213/EC), the reaction to fire class D-s2, d0 is assigned without additional testing to all solid wood exterior cladding with a minimum average density of 390 kg/m<sup>3</sup> (measured according to a reference humidity) and the minimum thickness of which is 18 mm.</p> <p>The influence of a preservative treatment against biological attack or any other finishing treatment must also be taken into account. If necessary, the reaction to fire performance of treated and untreated wood panelling and cladding products should be tested and declared according to EN 13501.</p> <p>Regarding barnwood, fire retardant treatments improve the reaction to fire and reduce their contribution to a conflagration and fire propagation (for example vacuum/pressure impregnation with fire retardants suitable for exterior or interior applications make it possible to obtain the reaction to fire class B-s1, d0)</p>
<b>Toxicity</b>	Barnwood planks may have been treated with toxic products or have been in contact with hazardous substances during their use. Most of the time, even if it is possible to visually detect the presence or absence of preservative and finishing treatments, it is generally more complicated to determine the exact nature of the substances present. Laboratory tests make it possible to identify and assess the dangerousness of any contaminants present. The toxicity of some of these contaminants may have dropped drastically after several years in service. In the absence of information on this subject, it is best to stick to the "precautionary principle" or likely to interact with food and/or people, for interior applications.



**Availability**

Barnwood planks are currently enjoying a certain notoriety. However, their availability depends on the quantities required. As an example:

Frequent	0 → 100m <sup>2</sup>
Occasional	100 → 250m <sup>2</sup>
Rare	250 → 500m <sup>2</sup>

For particularly large orders, some suppliers may need time to assemble different batches. In this case, it is also probable that the boards have various origins.

**Indicative prices (Excl. tax)**

Random sampling of the reclamation market in Western Europe (Belgium, France, Great Britain and the Netherlands) made it possible to extract some indicative prices. These vary depending on the models, condition and quantities needed. Some observed prices:

→ *North American barnwood*

- Oak: 80 - 170 €/m<sup>2</sup>
- Softwood (pine, hemlock), edged + brushed: 80 €/m<sup>2</sup>

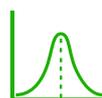
→ *European barnwood*

- Oak: 65 - 100 €/m<sup>2</sup>
- Oak, edged: 75 - 110 €/m<sup>2</sup>

- Soft wood (resinous), raw: 35 - 45 €/m<sup>2</sup>
- Soft wood, edged + brushed: 45 - 60 €/m<sup>2</sup>
- Soft wood, brushed + tongue and groove: 60 - 100 €/m<sup>2</sup>

These prices correspond to dried (H = ~ 12%) and untreated boards. Long boards are sometimes more expensive.

**Find specialised businesses**



Assessing the impact of reclaimed timber construction products on global warming is complex and difficult to generalise. The general principle is that construction timber can confine biogenic carbon. Reclamation is therefore a way of preserving these carbon stocks and preventing it from being released into the atmosphere (which would be the case if the wood was incinerated, for example). The overall environmental assessment of a reclaimed wooden element must, however, also take into account aspects such as the origin of the product and the distance travelled, the use of preservation treatment, etc. For more information, it is advisable to consult the specific paragraph devoted to this question in the introductory sheet.

**Hazardous substances and precautions**

Barnwood planks may have been treated with toxic products or have been in contact with hazardous substances during their use. Most of the time, even if it is possible to visually detect the presence or absence of preservative and finishing treatments, it is generally more complicated to determine the exact nature of the substances present. Lead, copper, chromium, arsenic and PCP are some of the hazardous substances that can be found in barnwood planks. Their concentration in wood, their effectiveness and their residual harmful power are difficult to estimate without implementing specific laboratory tests. In the absence of information on this subject, it is best to stick to the "precautionary principle" or likely to come into direct contact with food and/or people for interior applications. In addition, sawing, planing, sanding, etc. must be carried out by taking the appropriate safety measures (personal protective equipment, dust extraction systems, waste disposal, etc.).

	<p>A <i>lead</i> diagnosis may be necessary to detect the presence of old lead paints on the planks. This diagnosis can be carried out either using a commercially available lead test kit, or by sending a sample of the paint to the laboratory or by having this test carried out by a professional. In this case, it is strongly recommended to strip and/or repaint using a specialised operator. It is strongly advised against using a heat gun, sander or sandpaper to remove lead paint. Chemical stripping will be preferred, with adequate health and environmental provisions. An alternative to stripping can be to apply a new top coat so that the old coat of paint is completely encapsulated.</p>
	<p>For more information on the subject, you can consult the following document written by INRS which covers the main wood treatment products (constituents, dangers, uses, preventive measures): <a href="https://www.inrs.fr/medias/html?refINRS=ED%20981">https://www.inrs.fr/medias/html?refINRS=ED%20981</a></p>