

A smart alternative to tropical hardwood

Fast-growing pinewood



- Renewable building material
- Resource efficiency
- From sustainably managed forests

Eco-friendly



- 100% organic
- No coating required
- Low maintenance

Biomodification



- Modified to the core
- Based on biopolymers
- Enhancement by cross-linking

Bio-based



- Biopolymers from bagasse
- Non-toxic and recyclable
- 100% renewable

Outstanding durability



- Tested to durability class I
- Reduced surface cracking
- For use in fully exterior applications



FORECO®



NOBELWOOD® at Fiep Westendorp in Amsterdam



Fiep Westendorp School

Paul de Ruiter Architects designed a new façade concept for a community school and a range of high-quality houses and flats. Green living facades are exterior walls which incorporate vegetation growth. This provides real benefits such as CO₂ uptake, a cooling effect during the summer months and a green exposure within town environments. A specific design feature was the NobelWood® construction that supports the climbing plants. A combination of SafeWood® Select and NobelWood® provides state-of-the-art wood modification and fire retardant protection in a unique maintenance-free and safe product.

Architect: Architectenbureau Paul de Ruiter
Photography: John Lewis Marshall
Assembly: Foreco timber constructions

Alternative to tropical hardwood

NobelWood® can be used as an attractive, cost-effective alternative to tropical hardwoods. It offers consistent quality throughout the wood by using a new wood modification technology. Pine wood is fully impregnated with water soluble biopolymers made from bagasse. The resulting NobelWood® has durability class I, the highest achievable durability rating. Toxicity testing also shows results below the value of certain hardwoods, for example Meranti. NobelWood® is definitely a product to consider when sustainability and safety are important issues.



Untreated pine wood



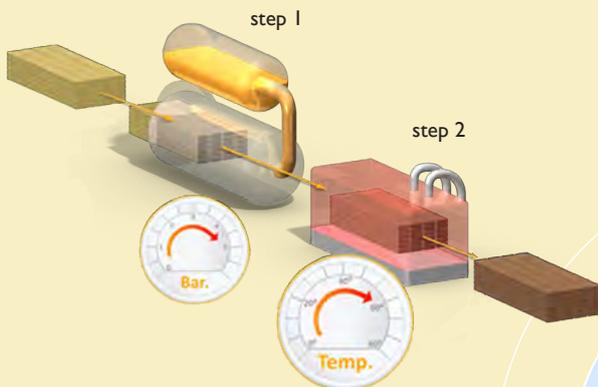
Transformed to NobelWood®



Consistent quality throughout

Pine is fully pressure-impregnated with water-soluble biopolymers made from bagasse. After a drying process the polymers strengthen the cell walls, improving the quality characteristics of the wood. As well as improved durability, the modification process also gives the timber excellent machining properties – no special tools or specialist machining are required.

The treatment creates consistent quality throughout the whole of the wood. The corrosion properties of metal fixings including aluminium, carbon steel, galvanised steel, copper or red brass used in contact with the wood are not affected by the treatment. This provides a similar performance to softwood products, leaving no extra requirements for steel mounting of materials.



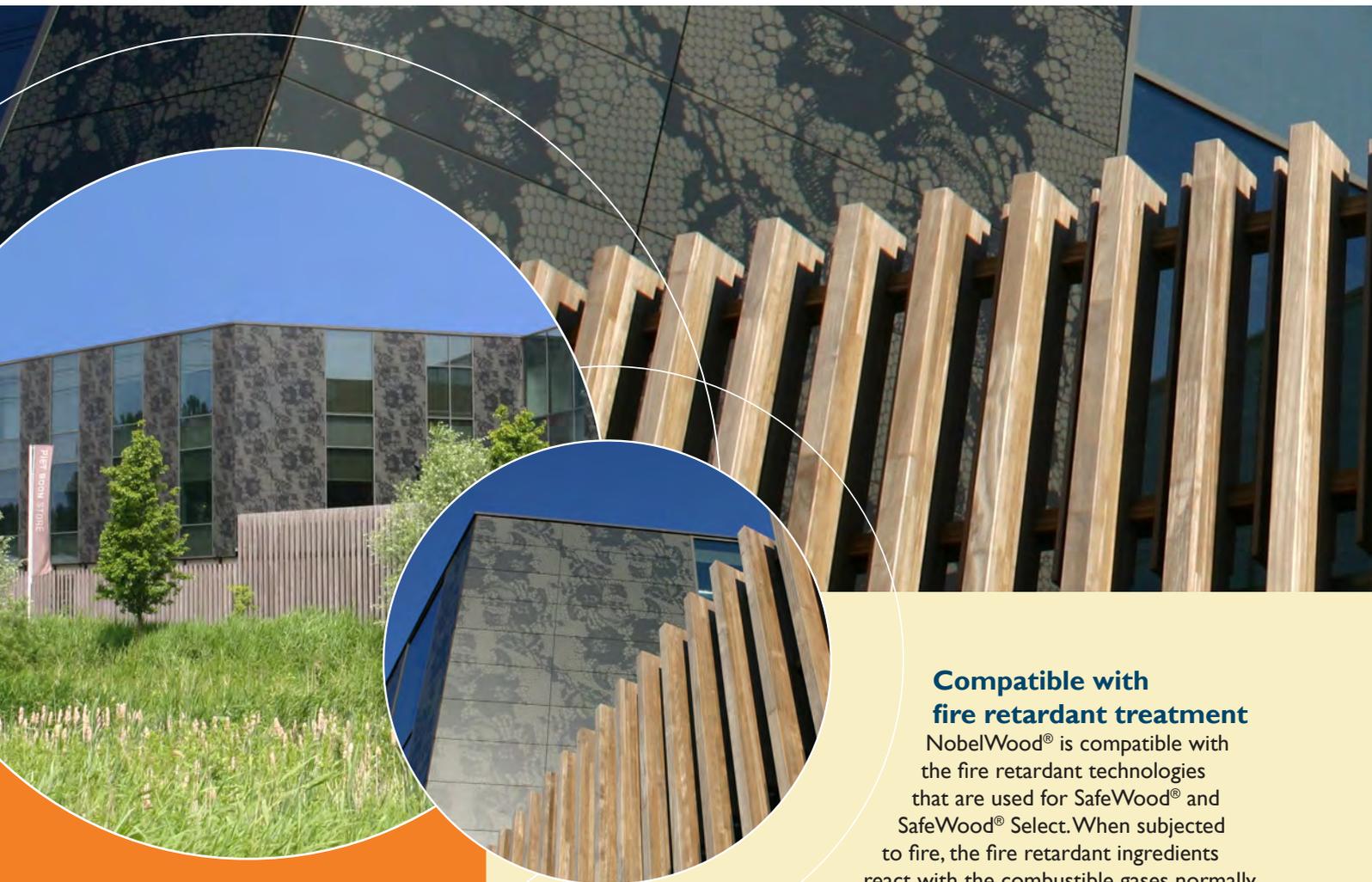
Housing renovation

The residents of this private house in Amersfoort wanted to increase their living space by adding an extension. They chose to build it with a wood product to provide a natural but modern appearance and they selected NobelWood® for the external cladding. All the components have been coated to reduce any weathering effects.

Architect: LOT Architectuur
Photography: LOT Architectuur



NOBELWOOD® at Probuild in Oostzaan



Piet Boon

Piet Boon used NobelWood® for the parking garage at his office in Oostzaan. The prestigious office is decorated with laminated NobelWood® which gives the front of the building a luxurious appearance.

The laminated beams measure 7 by 24 centimetres, with a length varying up to 5 meters in total. The upper sections of the beams have been constructed as a balustrade for the terrace located on top of the parking garage.

Architect: Piet Boon
Photography: Foreco

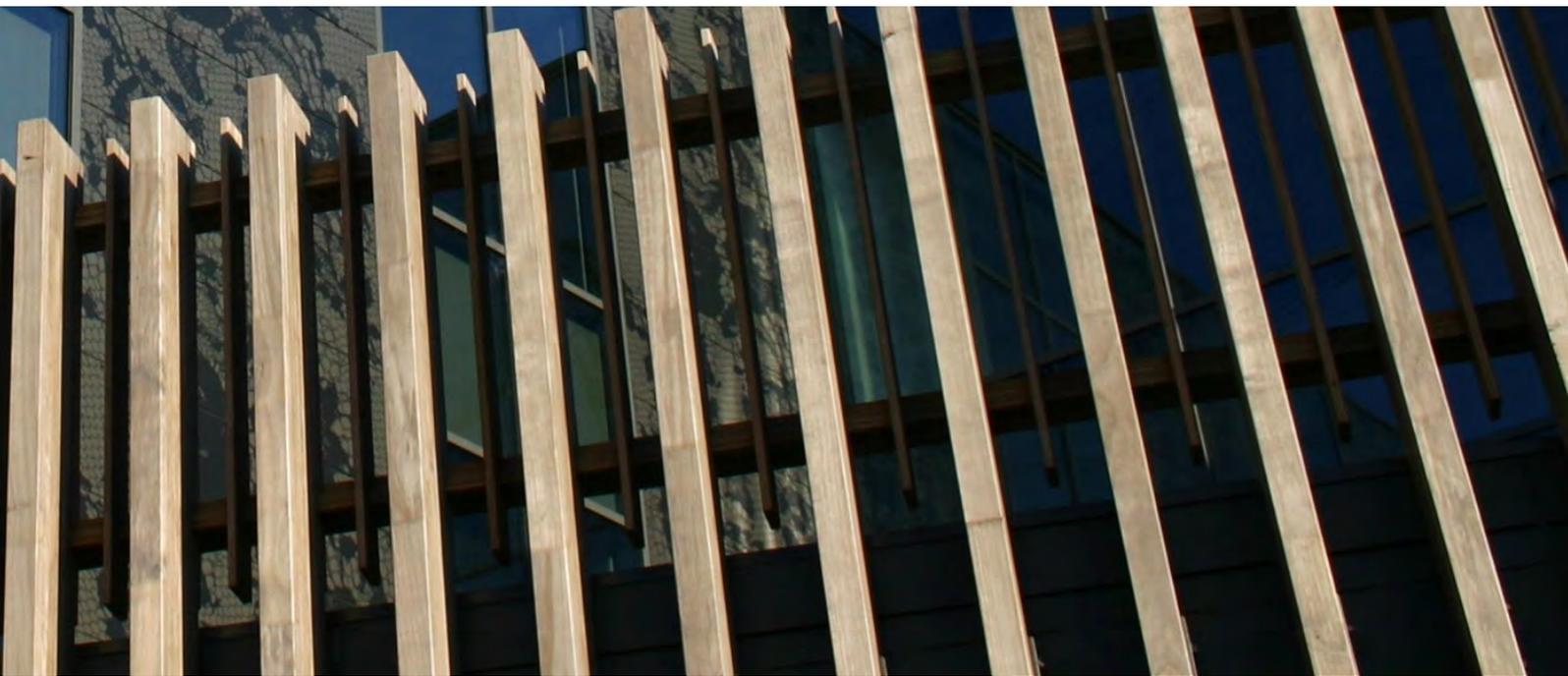
Compatible with fire retardant treatment

NobelWood® is compatible with the fire retardant technologies that are used for SafeWood® and SafeWood® Select. When subjected to fire, the fire retardant ingredients react with the combustible gases normally generated by untreated wood, and convert them to carbon char, carbon dioxide and water.

SafeWood® and SafeWood® Select treatments meet the requirements for Euroclass B (EN 13501-1) concerning fire safety regulations. SafeWood® is suitable for humid interior applications. SafeWood® Select is suitable for exterior or severely damp situations. NobelWood® combined with the proven fire retardant technology of SafeWood® Select offers a maintenance-free product, without the need for coating.

Available in various dimensions and options

NobelWood® is available in a wide range of sizes. It offers possibilities for cladding, decking and various other exterior and interior applications. Face band sawn NobelWood® offers a unique product with a surface that helps the fixation of coating systems, as well as a more gradual ageing towards a final silver-grey appearance if left uncoated. Studies have shown that cladding and decking materials which are face band sawn reduce the maintenance requirements of the coating and increase the service life of wood products compared with regular smooth planing.



Unique aesthetic characteristics and appearance

As well as the advanced technical and ecological benefits of the material, NobelWood® also has a distinguished appearance and unique aesthetic characteristics. Biomodification results in a rich brown look that resembles the color of natural teak. The homogeneous structure of the selected pine for NobelWood® also gives a gradual weathering towards a final silver-grey exterior color.

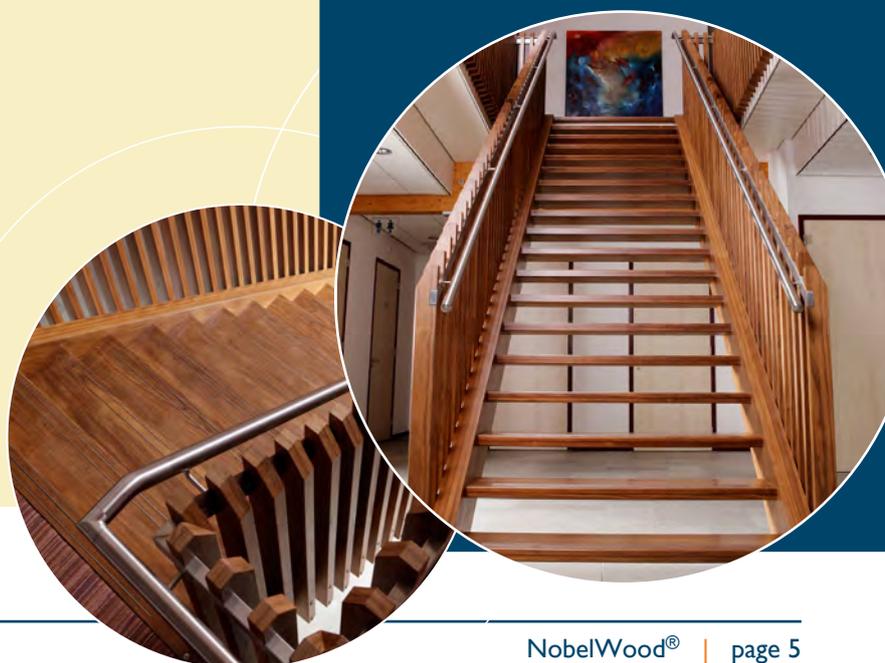
After installation NobelWood® will gain a natural appearance similar to several tropical hardwood alternatives. Wood oils or other compatible wood finishes can also be applied for a long-lasting rich brown look.



Stairs at Foreco

NobelWood® creates a prominent feature in the central hall at Foreco's main office. The building's central stairway was one of the first projects to be manufactured from the new material. The stairs demonstrate what is possible by laminating and machining the timber. Many visitors have mistaken the stairs for teak or other expensive tropical hardwood products.

Architect: Architektenbureau Huls Staphorst
Photography: Marieke Vogelzang



NOBELWOOD® at Amsterdam IJburg



Villa S2, IJburg

Villa S2 on the IJburg island is a three-storey, split-level villa with a spacious design, incorporating high ceilings, open spaces to the waterfront and NobelWood® exterior cladding.

NobelWood®'s rich brown color will weather gradually towards a silver-grey appearance, which fits in perfectly with the cube shaped villa's modern design.

Architect: MARC architects
Photography: Raphael Drent



DUBOkeur® for timber cladding products

The Dutch institute for building and ecology (NIBE) carried out an indicative assessment to determine the environmental impact of NobelWood®. They concluded that the use of biopolymerised wood has less impact on the environment than comparable building materials and awarded Foreco their trademark DUBOkeur® accreditation. The review compared different products with each other and was based on scientific Life Cycle Assessment (LCA) data and 'cradle to grave' calculations. The environmental impact is calculated based on an assessment of:

- production methods;
- maintenance requirements;
- end-of-life impact.

DUBOKEUR®



NobelWood® Color with a high-quality coating system

Architects and designers have the possibility to use a wide range of colors in NobelWood® projects, based on the NobelWood® Color system. It offers a range of natural colors and the option of using any RAL color. The coatings are applied in a modern and controlled factory environment. The coating is a water-based system with a proven combination of oil-modified waterborne binders. The system weathers slowly and evenly over its surface and can be easily overcoated with minimum preparation. It provides a robust protection against UV degradation and its transparent finish makes it possible to accentuate the natural appearance of the selected wood.



Ecological and sustainable with FSC® or PEFC

NobelWood® is a renewable building material based on fast-growing pine, sourced from sustainably managed forest areas, in accordance with FSC® or PEFC standards. The pine, in combination with bio-based polymers, becomes a 100% organic, high-quality alternative to tropical hardwood as a durable material for sustainable construction. This creates

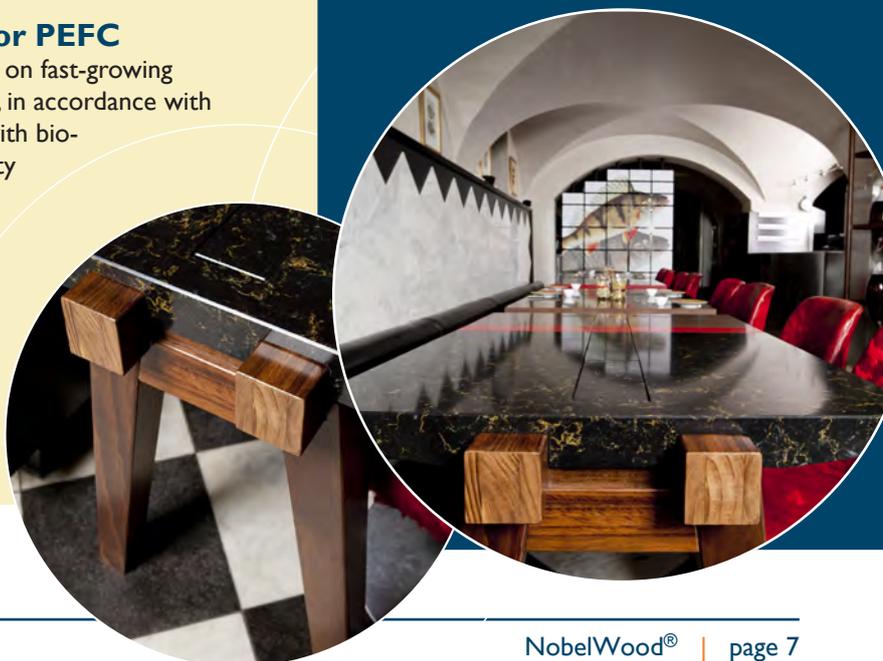
a real environmental benefit as it will reduce pressure on our tropical rainforests.



Table at Librije

Dries van Wagenberg designed a unique NobelWood® table for the three-Michelin-star restaurant 'De Librije', commissioned by its owners Jonnie and Thérèse Boer. The Chef's Table has a sturdy wooden frame, laminated with NobelWood®. The famous culinary couple was drawn to the natural appearance of the NobelWood® product.

Designer: Dries van Wagenberg
Photography: Gijss Ooms



NOBELWOOD® Innovation by Foreco



WaxedWood®



TwinWood®



SafeWood®



SafeWood® Select



Foreco timber constructions



Ijreka playgrounds

Build sustainable - use wood!

Wood is the perfect sustainable building material. NobelWood®, developed by Foreco, is a prime example. Wood from sustainably managed forests is processed with innovative preservative technologies to offer a high performance construction material. Similarly, WaxedWood® is a durable, low maintenance cladding material with built-in water repellence. Our SafeWood® technologies provide timber with assured fire protection.

Foreco timber products are sustainable and clean, with proven high performance, confirmed through certification and project warranties. We aim to provide effective and reliable products for wherever timber is to be used - from riverside water-contact timbers to sustainable and safe cladding systems.

Nature produces the renewable raw material, we extend its possibilities!

www.foreco.nl



FORECO®