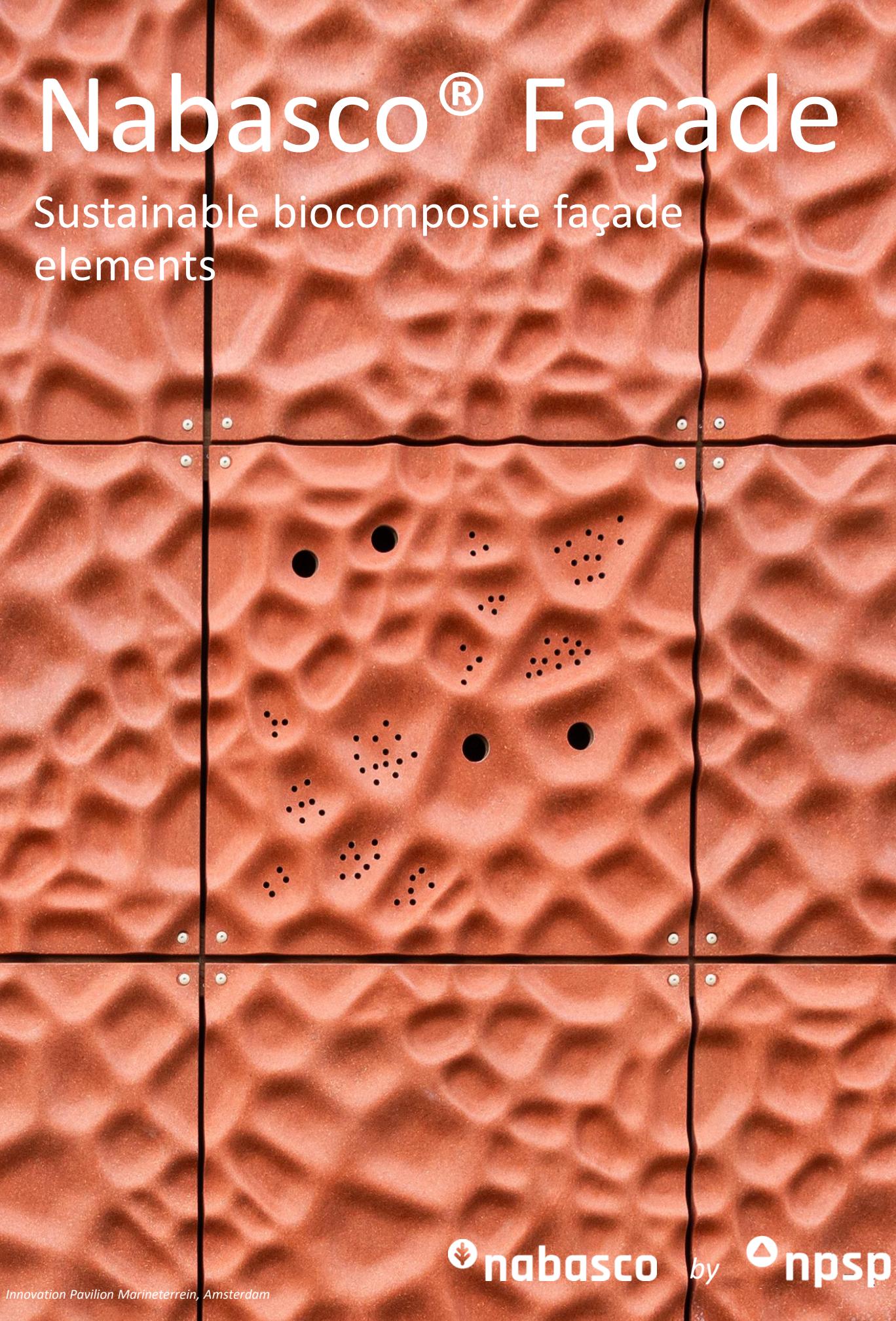


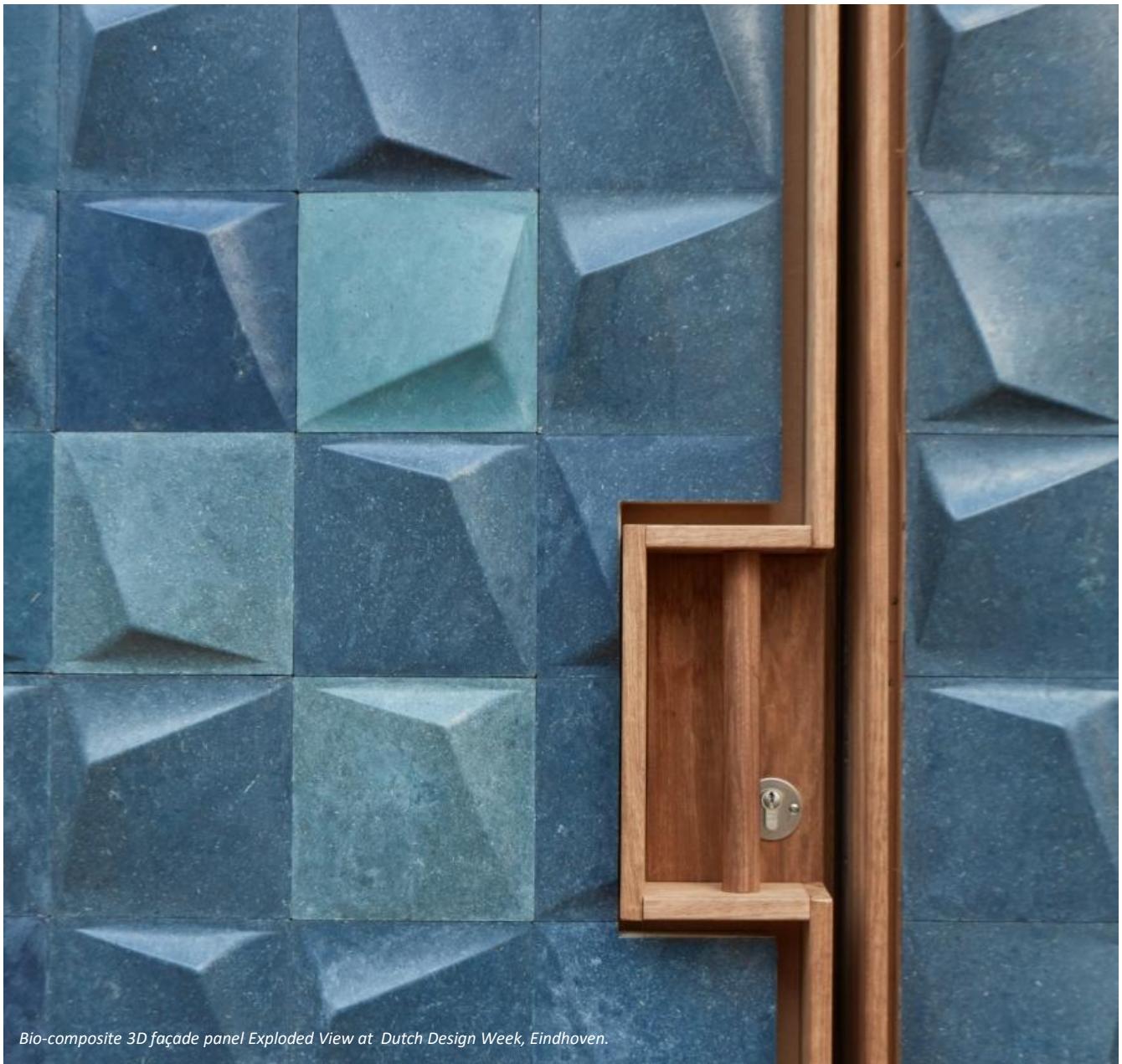
Nabasco® Façade

Sustainable biocomposite façade
elements



 **nabasco** by  **npsp**

Innovation Pavilion Marineterrein, Amsterdam



Bio-composite 3D façade panel Exploded View at Dutch Design Week, Eindhoven.

Nabasco® Biocomposites

Nabasco® circular biocomposite products are made from bio-based or renewable materials. NPSp uses local, natural fibers such as flax, hemp and increasingly residual materials such as roadside grass, reed and recycled toilet paper as much as possible combined with biobased resin. The products are durable and maintenance-free, so very suitable for demanding outdoor use such as cladding.

Biobased, circular & local

The fibers used for Nabasco® require significantly less energy to produce and fewer chemicals to adhere to the binder. As a filler, NPSP uses chalk extracted from the water of drinking water companies, instead of chalk from mines. The drinking water companies filter this chalk from the water to make it softer and to give washing machines and dishwashers a longer lifespan. The resins we use are also based on residual flows from other industries. For example, resins are made from residual flows from biodiesel production, sugar production, paper production and even sewage treatment.

Recycling

100% biobased and 100% based on residual materials does not mean that the product is also recyclable at the end of its lifespan. NPSP works together with its strategic partners on various forms of recycling. At this point, the materials can be ground and completely reused as filler material in new composites. In addition, we are working on higher-quality chemical recycling with which we expect to be able to separate the fibers and resin and reuse both. We are also working on optimal recycling from the perspective of bio-based circularity, where we allow micro-organisms to break down the bio-based composites into nutrients for agriculture.





Bio-composite 3D façade panels for Prorail
Design - Studio Marco Vermeulen
Production - NPSP B.V.

Freedom of form

Nabasco® biocomposites are produced by the application of high pressure and heat on the material while it is secured and shaped in a mould. Unlike sheet materials, this offers the possibility of creating three-dimensional products without material loss or additional processing costs. This allows the designer to create façades with a completely unique identity.

Maintenance-free and long service life

Nabasco® biocomposite is maintenance-free. It requires no coating and is pigmented within its mass, so minor damage does not affect its quality or appearance.

The technical lifespan of Nabasco® biocomposite is at least 30 years.

It is highly suitable for extreme conditions: resistant to large temperature differences and suitable for 'wet' applications.

Currently, major applications of Nabasco® are, among other things, level gauges and other signs.



Nabasco® Façade Product Portfolio

Nabasco® biocomposite is utilized in a variety of applications.

Tectural



New
Habitat

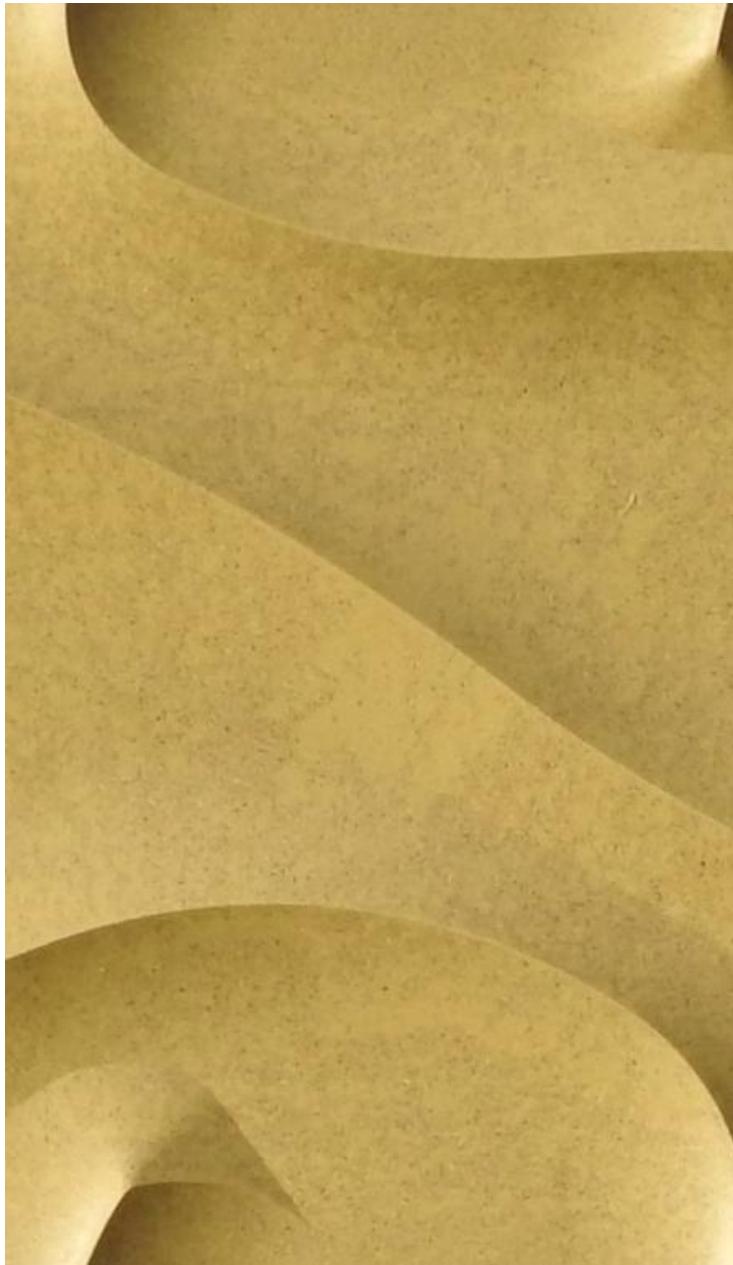


Custom



Natural





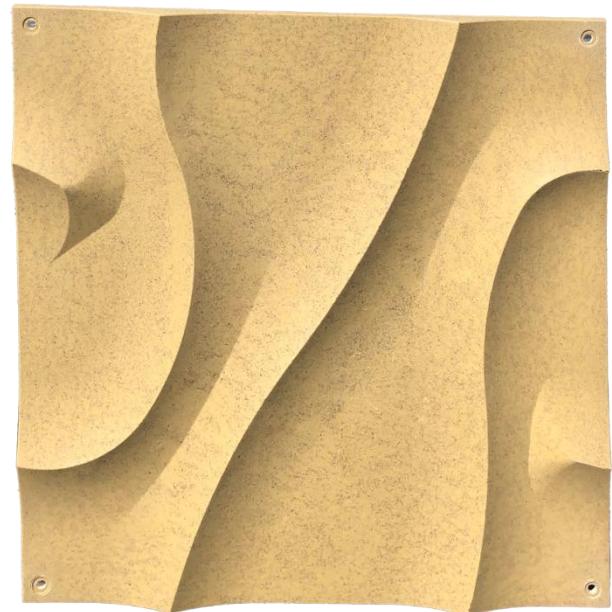
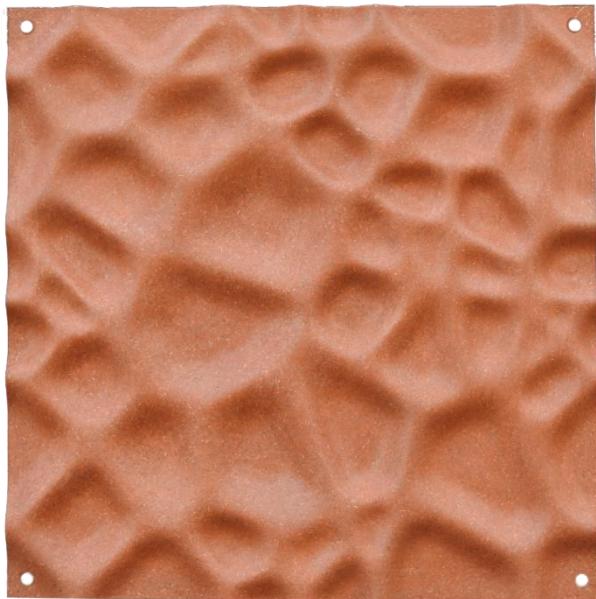
Nabasco® Tectural

Nabasco® Tectural is a collection of 3D-shaped architectural façade panels. The façade panels are offered in either a homogeneous color scheme or in a playful hue.

The standard panel size is 600x600mm. Fire classification B S1 d0 according to EN13501 is possible.

Nabasco® Tectural Panel Types

The different 3D possibilities. The façade panels can be rotated in any direction and form unique landscapes, while maintaining their ability to look like a single element.



Amsterdam Tectural

The design is developed in collaboration with Studio Marco Vermeulen for the Innovation Pavilion Marineterrein, Amsterdam.

The design is inspired by the mathematical diagram Voronoi. This panel showcases the ability of forming complex detailed panels with multiple depths and shapes.

Dune Tectural

The design is developed inhouse Pompstation 34 in de Amsterdamse Waterleidingduinen.

The design is inspired by the sand dunes. This panel showcases the possibility of forming sharp edges and thin curves along the surface of panels.



*Biobased facadepanels (HDSR) Hoogheemraadschap De Stichtse Rijnlanden De Meern
Artist Impression: Schoots Architecten*

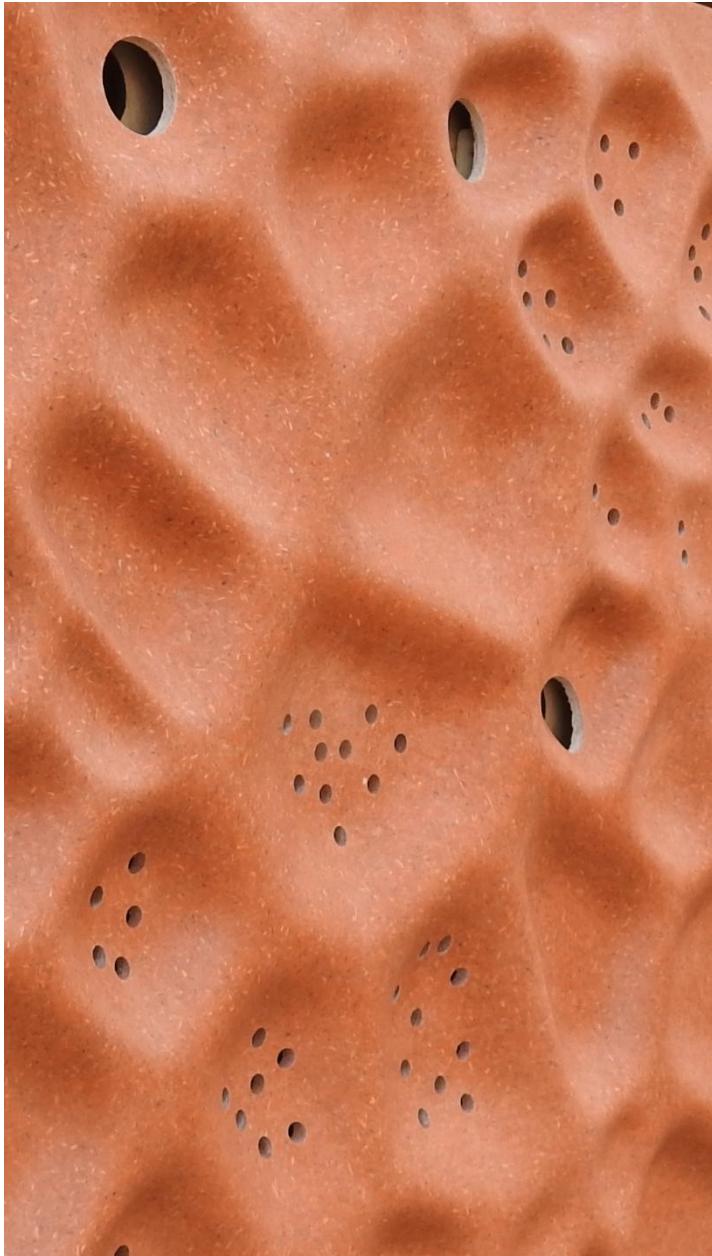




Innovation Pavilion Marineterrein
Photo credits: Boom



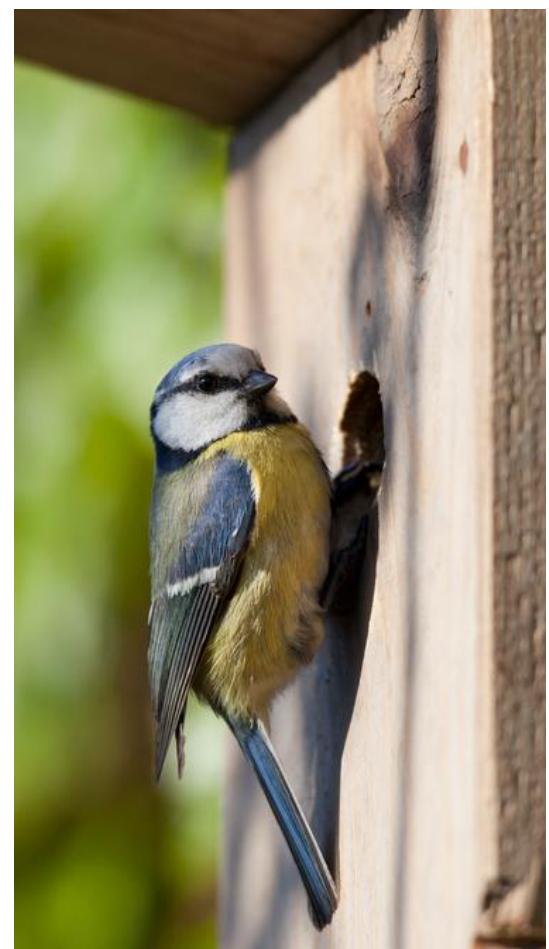
Pompstation 34 in de Amsterdamse Waterleidingduinen

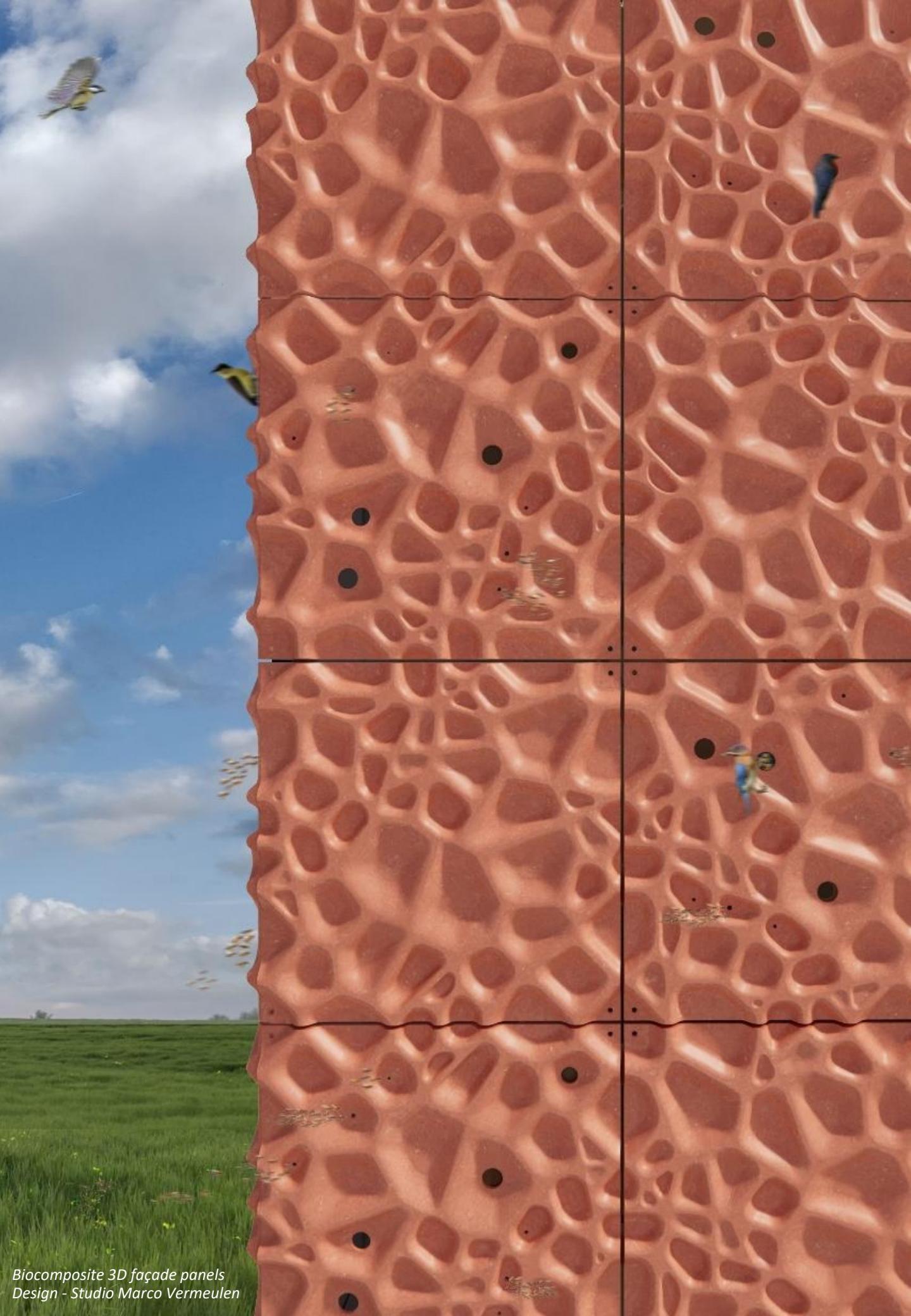


Nabasco® New Habitat

Nabasco® New Habitat are nature-inclusive façade elements for utility buildings such as warehouses, data centers, pumping stations and hospitals. It was developed in collaboration with Studio Marco Vermeulen, ecologists and research institutes.

This product is a solution to the increasing demand from customers and inhabitants for both practical building materials and nature inclusive products, without compromises on safety and scalability. Nabasco® New Habitat elements in buildings aim to enable biodiversity to thrive.





Biocomposite 3D façade panels
Design - Studio Marco Vermeulen



Design - Studio Marco Vermeulen

Nabasco® Custom

Nabasco® Custom represents the realization of 2D and 3D façades to specification in our in-house pilot plant. We offer you the unique opportunity to realize your own design and appearance with customer-specific moulds.

In addition to customized design, on-demand ingredients such as local fibers, residual streams from water boards or local pigments are possible. We offer advice on raw material selection and engineering of the façade.

We can also optimize according to MKI or CO₂eq. The 3D panels have a maximum area of 0,40 m² and a maximum length of 1 meter.



*Bio-composite 3D façade panels for Prorail
Design - Studio Marco Vermeulen
Production - NPSP B.V.*

Prorail Façade

Nabasco® 3D façade panels are a solution to realise a unique nature-inclusive facade. This is a new concept for housing electrical installations along the Dutch rail network.

Prorail has set the ambition to replace outdated buildings with a modular, bio-based and nature-inclusive concept. Studio Marco Vermeulen translated this into a stylish and intelligent design.



Exploded View Façade

This façade consists of 3D-shaped tiles made of reeds, cellulose fibers from recycled toilet paper, softening calcite and a partially bio-based resin.

Natural pigments from blue-green algae and indigo have been added in different proportions resulting in varying shades of color. Tiles with cane fibers differ from tiles with cellulose fibers in texture, as the cane fibers are visible on the surface.

Apart from the resin, all raw materials come entirely from Dutch residual streams.



Nabasco® natural

Nabasco® natural consists of flat panels in various thicknesses. These thicknesses are determined by project-specific engineering.

Most flat façades are realized with panels of 6 to 12 mm. The façade panels have a natural color due to the ingredients' inherent coloration. Custom colors are possible for requests larger than 100m².

The standard panel size is 600x600mm. Fire class B S1 d0 is available.



Home renovation Biervliet
Client: 'Woongoed Zeeuws-Vlaanderen'

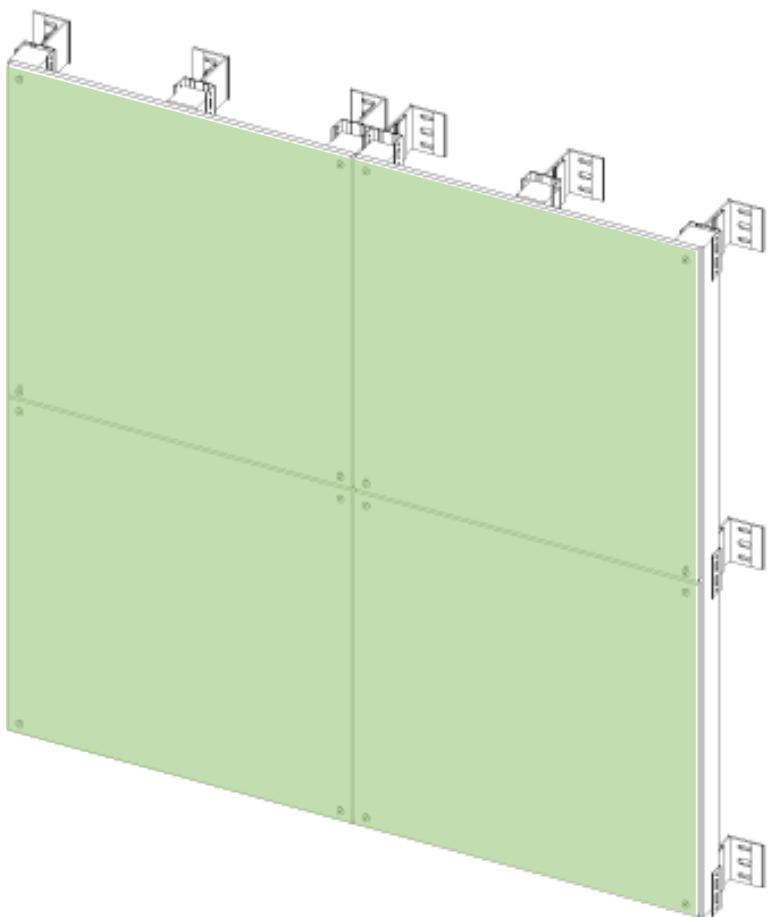
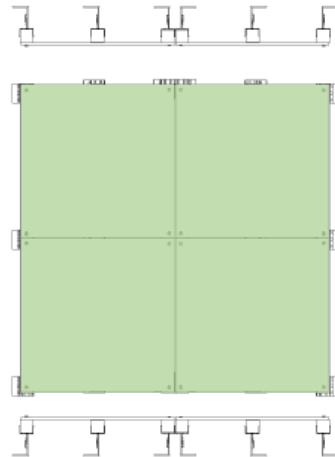


Stantec-Moeskops Biobased facade Treeport
Fotocredits: Riesjard Schropp, Breda

Installation

Nabasco© façade panels can be mounted on wooden slats or standard façade mounting systems available in the market.

The minimum distance between the mounting points is center to center 600 mm and the minimum distance to the edge of the panels is 20mm. Blind mounting is also possible.



Specifications

Sizes

Available sizes depend on requirements and quantities. We produce in our own pilot plant but also work closely with a number of plants in our neighboring European countries.

Colors

Any RAL or Sikkens color through and through. The natural color of the ingredients will influence the color, so some deviation from the color range may occur. Especially the light colors have clearly visible golden brown cane fiber speckles, which again is a distinct material character.

Thicknesses

Minimum 4 mm to maximum 25 mm. The minimum thickness of the Nabasco© 8012 Fire is 8 mm.

Guarantees

We provide a 10-year warranty against manufacturing defects.

The Nabasco© N8012 Fire version meets fire class is B S1 d0 according to EN 13501.

Aesthetic aging

The panels remain technically sound for more than 30 years. Nonetheless, the appearance of the panels will slightly age at a surface level. We see 3 aging effects:

1. The "graying" of the natural fiber. The sheets will become less mottled.
2. Decreasing saturation of colors. Most (natural) pigments become less saturated. We recommend choosing colors accordingly. We are now working on projects in blue/gray, olive green, natural and terracotta. These colors will become fainter, but are already slightly less saturated in terms of their original character.
3. The calcite will slightly transition to the surface layer, making the panels more matte and stone-like in appearance.

We have an accelerated-UV aging machine to show the effects. With simple maintenance, these effects can be reversed .

Contact

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