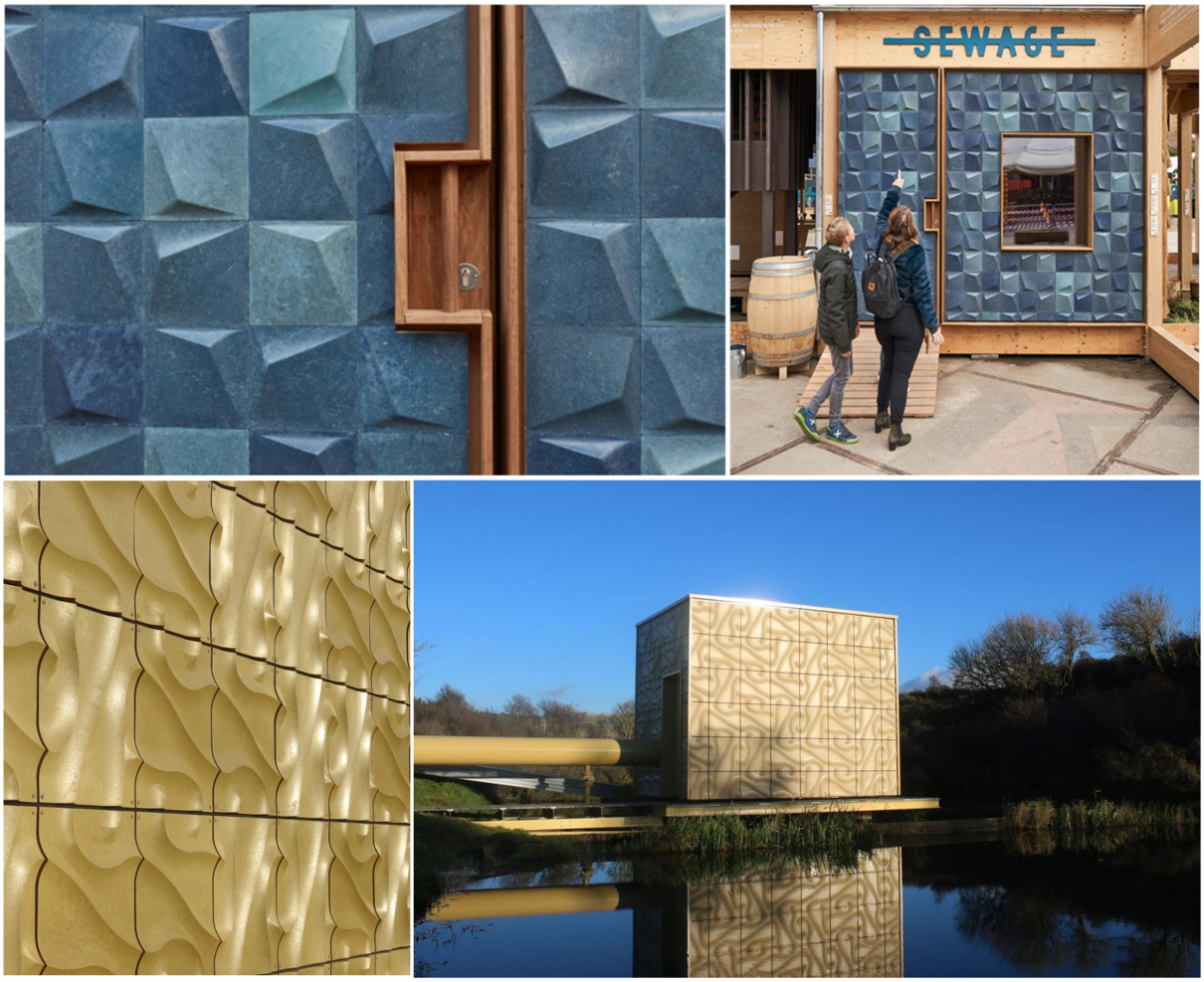
Product factsheet

Nabasco® 80xx series Façade cladding

Hardware product or technological device



Description

Nabasco® 80xx bio composite materials are durable and maintenance free, making them very suitable for demanding outdoor use such as facade cladding. The Nabasco® façade product proposition includes cleverly designed 3D facade panels or tiles, which can be arbitrarily combined into a continuous pattern over a larger surface. These modular facade panels allow creating an individual identity in a facade. Combined with a choice of ingredients including natural fibres and water cycle residuals, NPSP can facilitate customized facade projects that combine beauty and sustainability.

Top images:

Nabasco® 8012 and 8020 tiles combined in Exploded View Beyond Building (EVBB), an exhibition pavilion by Biobased

Creations / Company New Heroes. Natural dyes of blue-green algae and indigo are added in different proportions, resulting in a variety of colour shades. Tiles with reed fibres differ from tiles with cellulose fibres in the texture, with the reed fibres being more visible on the surface. EVBB has been exhibited at Dutch Design Week (NL) 2021, Floriade (NL) 2022 and Kamp C (BE) 2023, among others.

Bottom images:

Custom designed Nabasco® 8012 panels applied to a pumping station in the Amsterdamse Waterleidingduinen, a 3,400-hectare Natura 2000 and water filtration area managed and operated by Waternet. The pump house did not fit in with the natural surroundings and needed refurbishment. Waternet wanted the façade to reflect the ripples of the surrounding water and the nearby sand drift. The colour had to match the dune sand and vegetation throughout the seasons. NPSP then designed, manufactured and supplied the panels which incorporated Waternet's own residual calcite.

Both projects illustrated received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 869283.

Target audience

Sustainability managers, program managers, project managers, designers, architects

Actors, their roles and interactions

Client expresses their desire and requirements. NPSP advises the materials and collaborates with client's architect on the facade design and co-designs the facade elements. NPSP then produces the facade elements in-house (the Netherlands) and optionally with a partner manufacturer (EU). The facade is to be installed by a contractor. All raw materials except the resins originate from the Netherlands, e.g. calcite pellets from AquaMinerals (a representative of drinking water companies), cellulose fibres from Recell® (a specialised processor of such, who obtains the material from WWTP(s)) and reed from a reed cutter.

Unique selling points

Sustainable thermoset materials. Weather resistant, low maintenance. Reuse of water cycle residual flows. High material circularity index (>80% waste based, 100% recyclable). Low environmental impact (CO2 footprint). Long life span (>50 years). Fire class B possible. Custom design and colours possible (>100m2). Low-cost aluminium moulds possible.

Technical requirements

Products to be designed by or in collaboration with NPSP for manufacturing by NPSP and/or 3rd party. Process steps: 1. Requirements formulation 2. Facade design 3. Material composition. 4. Facade elements design 5. Mould design 6. BMC dough production 7. Facade elements production 8. Facade construction / mounting

URL

https://www.npsp.nl/en/

Technology applied by the product

- **Civil and Environmental Engineering**

Costs

Based on quotation
Last update: 2024-06-21

Case Study applying the product

The Netherlands

https://mp.watereurope.eu/d/CaseStudy/37

Related tags

sustainability | biomass | recycling | wastewater | Resource recovery | Circular Economy | drinking water