TECHNICAL DESCRIPTION
NOMAD CLADDING

Brief description

The **NOMAD cladding** is a ventilated rainscreen cladding system with a slatted look, made using **VESTA®.** The **NOMAD 6** is covered by a **CSTB ATEC** for installation on wood or metal, and the others will be attached by October. The **ATEC** for rack and pinion installation will be available shortly, as will the EHSF.

- Dimensions of the NOMAD boards: standard lengths of 2,000, 2,500, 3,000, 3,500 and 4,000 mm, width of interlocked boards of 300 mm.
- The boards are available in 2 fixed wave widths: 4 or 6 cm. The NOMAD Mix has variable wave sizes (4.7/7.7/2.7/9.7 cm). The three blades can be combined with each other.
- It can be laid horizontally or vertically on a simple, non-crossed framework or rack.
- Boards laid with A2 stainless steel screws provided by Neolife, screwed into wooden or metal frameworks.
- Mechanical resistance: Q3 for impact, V4 for wind, zone 4 for seismic risk (according to zone and importance level of the building, see ATec).
- Fire grading: Euroclasse D-s3, d2.
- Rot-proof (durability equivalent to grade 4) and no treatment required for cut edges.
- UV-resistance compliant with the NF EN 15534 standard.
- Vibrierendes Finish in allen Farbtönen unserer Farbkarte erhältlich.

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Full description

The service will include the provision and installation of the product, in compliance with the Technical Opinion (ATec) of **CSTB** and with the technical specifications applicable on the date of intervention.

1. Description of the NOMAD cladding

The **NOMAD** cladding is a rainscreen cladding system, compliant with the **EN 15534** standard, with a slatted look.

It's designed in VESTA®, which is a bio-sourced material composed of wood fibres, a binder and antioxidant, and mineral pigments. It creates a vibrated and even look.

The blades are available in 3 combinable profiles:

- NOMAD 4: 6-wave 4 cm blade
- NOMAD 6: 4-wave 6 cm blade
- NOMAD Mix: 4-wave 4.7 / 7.7 / 2.7 / 9.7 cm blade.

The three profiles are available in all the colours on the Neolife colour chart, with the material dyed throughout.

The **NOMAD** cladding boards can be laid horizontally or vertically on flat walls.

They're attached to the supporting framework, in the hollow of waves, using A2 mini 4.2 x 32 mm self-tapping screws in a wooden or aluminium support, and using A2 mini de 4.8 x 21 mm self-tapping screws in a steel support. These screws have a lacquered heat, coloured in a similar RAL.

A ventilated air gap, of at least 20 mm, is created between the inner side of the boards and the bare exterior of the supporting wall or of the thermal insulation, if applicable. When the cladding is vertical, the air gap is created in the wave of the cladding.

2. Dimensional characteristics

Manufacturing dimensions

- Standard lengths: 2,000, 2,500, 3,000, 3,500 or 4,000 mm
- Thickness: 17 mm
- Width of interlocked boards: 300 mm

Dimensional tolerances of standard manufacturing elements

- Length: - 0 / + 20 mm
- Width: ± 2.55 mm
- Thickness: ± 1.15 mm

Nominal surface masses

- NOMAD 4 : 7,9 kg/m²
- NOMAD 6 : 7,7 kg/m²
- NOMAD Mix : 7,2 kg/m²

3. Physical and mechanical characteristics

Fire
Euroclasse D-s3, d2

Impact
Q3 maximum resistance

Seismic
Suitable for seismic zones 1, 2, 3 and 4 for buildings with importance levels of I, II, III (refer to ATec)

Wind
V4 maximum resistance, exact breaking pressure to be determined.

4. Characteristics of the supporting framework

Wooden framework
The components of the framework comply with the indications set out in the CSTB 3316-V2 Specifications.
The battens will be calibrated, grade 2, and will present the following minimum dimensions:

– Minimum view width of 40 mm (at board joint: 2x40 mm or 60 mm)
– Minimum thickness 27 mm
– Maximum distance between batten centres: 645 mm on wooden framework and 600 mm on masonry or concrete

The co-flatness of the uprights must be verified in comparison with adjacent uprights, with a maximum authorised gap of 2 mm.

The attachment brackets must have been tested, taking into account any deformation under vertical loading of more than 3 mm.

The choice of attachments to the supporting structure must take into account wind exposure conditions and their authorised breakout resistance in the support under considerations, depending on the seismic risk zone and the building's level of importance.

In cases whereby the characteristics of the supports are unknown, the ultimate limit state resistance of the plugs will be verified by prior investigation, in compliance with the document "On-site determination of the ultimate limit state resistance of mechanical attachments for rainscreen cladding" (CSTB 1661-V2 Specifications).

At the time of their installation, wooden battens and rafters should have a maximum target humidity of 18%, with a maximum interval of 4% between two elements. The humidity level of the elements must be determined using the method described in the standard NF EN 13183-2 (with a humidimeter with a probe).

Wooden battens must have a mechanical resistance corresponding, at a minimum, to grade C18 according to the NF EN 338 standard, natural or conferred durability of grade 2 use with protective strips or grade 3b according to FD P 20-651.

Steel framework
Steel framework will have a flanged design and dimensions of 87 x 30 mm for omega profile, or 30 x 30 mm for C. It will comply with the indications set out in the CSTB 3194 Specifications and its amendment 3586–V2, and must be considered in direct external atmospheres. The framework will be composed of steel in a minimum shade of S220 GD.

Aluminium framework

Aluminium framework will have a freely extensible design, compliant with the indications set out in the CSTB 3194 Specifications and its amendment 3586-V2, and must be considered in direct external atmospheres. The view width will be at least 30 mm for intermediary support and at least 60 mm for board joints. The aluminium constituting the framework will be at least 3,000 as standard and will present a $R_{p0,2}$ elasticity limit above 180 MPa.

5. Installation principles

Fixings

The **NOMAD** cladding boards are attached to the supporting framework, in the hollow of waves, using A2 mini 4.2 x 32 mm self-tapping screws in a wooden or aluminium support, and using A2 mini de 4.8 x 21 mm self-tapping screws in a steel support. These screws have a lacquered heat, coloured in a similar RAL.

Ventilation

It is important for all supports and any board installation direction. It must be anticipated in lower and upper sections, leaving a minimum space of 15 mm (or according to DTU 41.2) and starting the board installation at least 15 cm from the finished ground collecting water (or 5 cm if metal framework and built-on ground). When installed vertically, the ventilation can be obtained in the wave of the cladding.

Decompression clearance

In general, the boards will be positioned so as to leave a gap of 5 mm between them (at the joining points) and with regard to any adjacent element in order to avoid any accumulation of dimensional variations.

Cutting the boards

NOMAD cladding boards can be cut using a fine-toothed saw. Small cuts can be made using a jigsaw. As the material is homogeneous and mass coloured, any cut edges don't requirement any particular treatment.

General principles and specific points

The figures in the technical specifications constitute a catalogue of treatment examples for particular features. The company installing the product undertakes to familiarise itself with it.

Accessories

Metal cladding profiles typically used to create particular features in traditional cladding must meet the following specifications:

– Anodic oxidation aluminium sheet, grade 15 or 20, in compliance with the NF EN 1396 standard. Thickness 10/10th, 15/10th mm or 20/10th mm.
– Galvanised steel sheet, at least Z 350, in compliance with the NF EN 10326 standard. Thickness 6/10th minimum.
– Galvanised steel sheet, at least Z 275, and pre-lacquered in compliance with the standard XP P34- 301.

Refer to the NF P 24-351 standard in regard to corrosion protection for sheet metal in line with local atmospheres.