

WOODEN CLADDING, CEILING AND WALL PANELLING INSTALLATION INSTRUCTIONS without Grad® mounting system

To ensure the wooden cladding is installed correctly, we recommend you read the entire Technical Information Sheet (NIT) 243 from Buildwise* (formerly the Centre Scientifique et Technique de la Construction). The NIT is only available in French and Dutch. In it, you will find all important details relating to the design and installation of wooden cladding. Below we will run through some of the key installation instructions:

- In order to limit hygrothermal warping of the wood, some recommendations concern the boards themselves. The slenderness factor (width/thickness ratio) of the boards must be less than or equal to 8 and the thickness must be 18 mm or more. In addition, the wood must be sufficiently stable (and durable). An overview of the species of wood that can be used is given in Table 2 of NIT 243.
- The wood's moisture content at the time of installation must be adjusted to the equilibrium moisture content expected during use. A moisture content of $17 \pm 1\%$ is recommended for most species of wood. Inadequate moisture content of the mass at the time of construction can lead to excessive warping later.
- Although other methods are not outright excluded, nails, screws or rivets with a diameter of 3 to 4 mm are generally used for fixing boards. However, plain nails are not recommended. The length of the fasteners must be at least 2 (screws) or 2.5 (nails) times the thickness of the boards. Also, using fasteners made of stainless steel or non-ferrous material is advisable.
- While care needs to be taken with fitting the boards, the proper design and installation of the supporting structure and insulation are also very important. We recommend you read §7 and §8 of NIT 243 in their entirety.
- The supporting structure must be designed in such a way that the cladding is always well ventilated. To achieve this, you should plan for an air gap of at least 15 mm in width and the necessary ventilation openings. For more information on this topic, please see §5 of NIT 243.
- Rainwater that has penetrated behind the wooden cladding and into the air space must not be able to seep too deeply and needs to be properly extracted. So it is important to include a vapour-permeable rain barrier when building and to install properly designed drainage openings. You will find some reference details on this topic in §8 of NIT 243.
- When installing closed HOTwood profiles, make sure you allow for a gap of at least 2 mm, as the HOTwood profile may expand slightly in high humidity.
- Please let us know if you need any other advice.

*www.buildwise.be