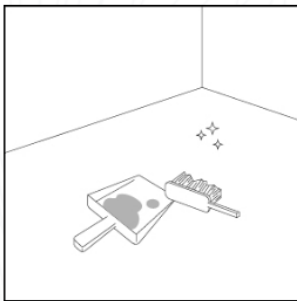


INSTALLATION PROTOCOL SHEET

1_SUBFLOORS

Below are the recommendations for installing ALSAFLOORING laminate flooring depending on the type of subfloor in the room where it will be installed.

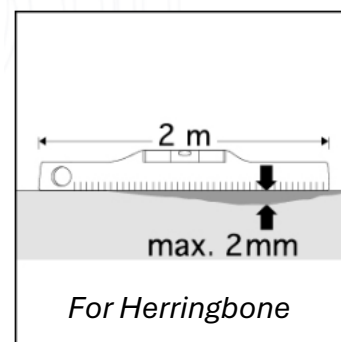
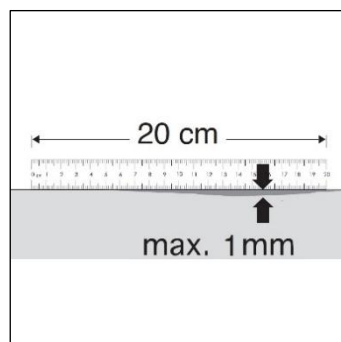
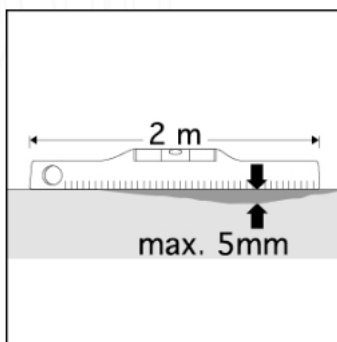
A. General information



The subfloor must be **level, clean and sound**. At the time of installation, the subfloor must be free from dust, gravel and any other roughness.

Before installation, thoroughly clean the floor to remove any dust or residue. The floor must be perfectly clean.

B. Subfloor flatness



The various substrates must provide **flat surfaces** such that a 2 m straightedge placed anywhere must not show a gap greater than 5 mm, and 1 mm under a 0.20 m ruler. For herringbone installation, the tolerance is 2 mm under a 2 m straightedge. If the above check reveals a lack of local or overall flatness, rigidity or sufficient hardness, the floor must be prepared and, where necessary, levelling or smoothing compounds suitable for

the nature of the subfloor must be used in accordance with the manufacturer's recommendations.

It may be necessary to carry out the following operations on wooden floors or wood-based panels:

- Re-level floorboards and panels by screwing them down,
- Sand the joints between panels if necessary,
- Sand down any protruding nail heads.

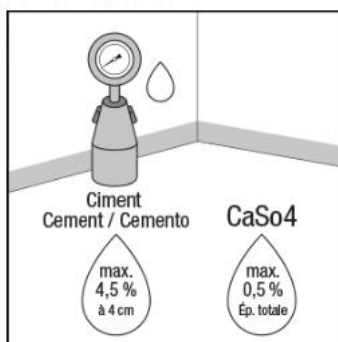
C. Subfloors

Installation of laminate flooring is possible on all substrates described in standard NFP63-204-1 (DTU 51.12) (including underfloor heating), except on joists.

- 1) Hydraulic binder-based substrates (dry screeds, calcium sulphate flowing screeds, cement-based flowing screeds).

Depending on the circumstances, the subfloor must comply with the requirements of standards NF DTU 21, NF DTU 26.2, NF P 11-213 (DTU 13.3), NF DTU 65.14, NF P 52-302 (DTU 65.7) or CSTB e-Specification No. 3642.

The specifications for these structures set out the conditions for use as a substrate for floating laminate flooring. In particular, for calcium sulphate-based screeds, in accordance with the Technical Specifications for Execution (CPT, CSTB Specification No. 3578):



- the screed must be initially sanded by the contractor responsible for the screed work
- the residual moisture content of the screed, measured using a carbide probe, must be less than or equal to 0.5% over the total thickness. For cement-based self-levelling screeds, the limit is 4.5% at 4 cm.

Moisture measurements carried out using electronic impedance devices allow the carbide bomb test to be postponed if the reading is greater than 5% for substrates based on hydraulic binders and greater than 0.5% for substrates based on calcium sulphate.

2) Wood-based panel substrates (including OSB)

Manufactured in accordance with standard NF P 63-203 (DTU 51.3). These panels must be at least 19 mm thick. At the time of installation, their moisture content must be less than 10%. These structures are constructed using solid timber boards, plywood, particleboard, oriented strand board (OSB) or fibreboard in accordance with standard NF DTU 51.3.

Secondary flooring may be constructed using boards fixed directly to a continuous subfloor. In this case, these are either plywood panels at least 10 mm thick, particleboard or fibreboard panels at least 16 mm thick, or OSB panels at least 12 mm thick.

3) Existing wooden floors

Installation on existing wooden floors is possible provided the floor is not damaged. The most uneven areas must first be sanded with sandpaper or levelled using a levelling compound (in accordance with the manufacturer's instructions). The moisture content of the substrate must be checked and must not exceed 12% (using a pin-type moisture meter).

4) Existing tiling

Installation over existing tiling is possible (excluding installation over earthen floor slabs), provided that the tiles are securely bonded, free from loose tiles and have an overall flatness equivalent to that of a concrete surface with a smooth finish.

5) Carpet and linoleum

Laminate flooring can also be laid:

- On existing plastic flooring, provided it is non-slip.
- On textile flooring without a foam underlay, fully bonded, and only if it is flat needle-punched carpet or short-pile carpet.

D. Substrate moisture levels.

The substrate must not expose the installed floor covering to rising damp, in any form whatsoever.

In all cases (including on underfloor heating), a vapour barrier with an SD value greater than 75m must be installed on the subfloor prior to laying the underlay to prevent any residual rising damp; either it is incorporated into the underlay (as with the Alsa TS, Alsa Silver and Alsa Hydro underlays, for example), or it must be laid separately.

Please refer to Underlay Protocol Sheet No. 3 for further information.