Indoor Cladding Installation - Installation on drywall

09, 2021

LAMINAM
SUPERIOR NATURAL SURFACES

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Laminam Spa produces and provides porcelain stoneware slabs for the construction of interior cladding. The Project Engineer of Laminam SpA provides technical assistance for a correct installation.

For more information, refer to the Technical Guide for cladding & flooring which can be downloaded from the website www.laminam.com

1. The product

Laminam slabs are made with advanced technologies that combine reduced thicknesses and large dimensions with high resistance to mechanical stress, chemicals, wear, scratches and deep abrasions. By nature, the material is hygienic and resistant to frost, mildew and the effects of UV rays. All characteristics and chromatic properties of our slabs are inalterable. They do not change over time or under any weather conditions. These revolutionary slabs are also environmentally friendly: natural raw materials, sustainable technology, and entirely recyclable products are the foundation of Laminam's green philosophy.

Laminam 3+

Features: Laminam 3+ is the basic slab reinforced structurally with a fiberglass blanket bonded on the back with a specific adhesive.
Processubg surface: 1000x3000mm (39.4"x118.1")
Nominal thickness: 3,5mm (1/8")

Laminam 5

Features: Laminam 5 is the basic slab.
Processing surface: 1000x3000mm (39.4"x118.1")
Nominal thickness: 5,6mm (¼")

Laminam 5+

Features: Laminam 5+ is the basic slab reinforced structurally with a fiberglass blanket bonded on the back with a specific adhesive.
Processing surface:
1200x3000mm (47.2"x 118.1") / 1620x3240mm (63.7"x 127.5")
Nominal thickness: 6mm (¼")

Laminam 12+

Features: Laminam 12+ is the basic slab reinforced structurally with a fiberglass blanket bonded on the back with a specific adhesive.
Processing surface: 1620x3240mm (63.7"x 127.5")
Nominal thickness: 12,5mm (½")

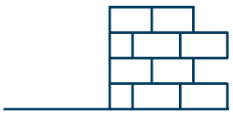
Laminam 3+ and 5 slabs, in the largest size 1000x3000 mm, and Laminam 5+, in its largest size 1200x3000 mm and 1620x3240 mm, can be applied as cladding in interiors. Laminam 12+ slabs can also be installed sizes where its weight allows installation. In this case, for the slabs do not transmit their weight directly to the floor, the Site Engineer must verify the need to insert mechanical restraints for safety.

Laminam 12+ products are available in the price list in “Full Size”, which is an untrimmed slab. They can be used in the construction industry after processing by a manufacturer, who can cut them into nonstandards sizes. For quantities over 100sqm in a single size and finish, ask Laminam S.p.A. to provide a direct shipment of material that has already been processed.

2. Design and installation guidelines

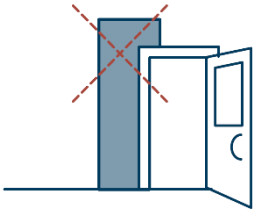
For correct design and subsequent installation, we suggest considering the following aspects:

Choice of size: it is important to assess the building site logistics because installing slabs of the dimensions 1000x3000 mm, 1200x3000 mm or 1620x3240 mm requires adequate space for handling and installation;

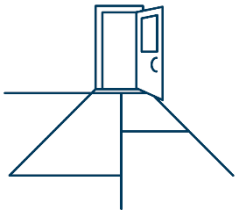


Installation scheme: due to their planarity, Laminam slabs can be installed following any scheme, even if they are offset by 50%;

It is necessary to prepare gaps and expansion joints to fit the installation, as indicated in later chapters;



We suggest avoiding “L” shaped cuts, if possible, and cladding those portions with regular non-standard sizes of slab. In these points, in fact, the screeds and plaster transmit stresses and settling of the building over time that can cause crazing to form in the material, which would already be weakened by the irregular cut. Crazing cannot be considered as defect in the material;



Thresholds and door passages: in correspondence with door passages, we suggest making a joint that coincides with the joint in the screed. It is possible to do this if you follow the sequence of the planned installation scheme. Even in contiguous rooms, different tensions can emerge from the screeds and it is a good idea to isolate them;

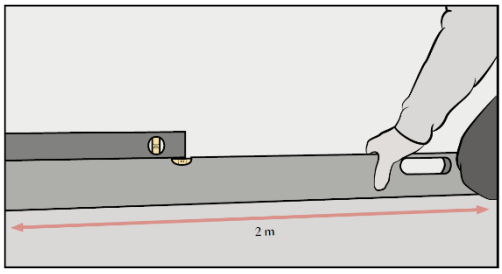
Order of the material: since these are large-sized slabs, check the installation scheme to see the quantity of material necessary for the wall cladding or the floor. Plan to have extra material on hand in case of breakage during processing or for future needs.

The indications provided in the following guide reflect provisions set forth by regulation UNI EN 11493 “Flooring and Wall Ceramic Tilings – Instruction for the design, installation and maintenance of ceramic tilings” and Laminam’s experience. The designer is responsible for verifying conformity and feasibility of the project, with regard to current laws and regulations in the country where the work will be performed.

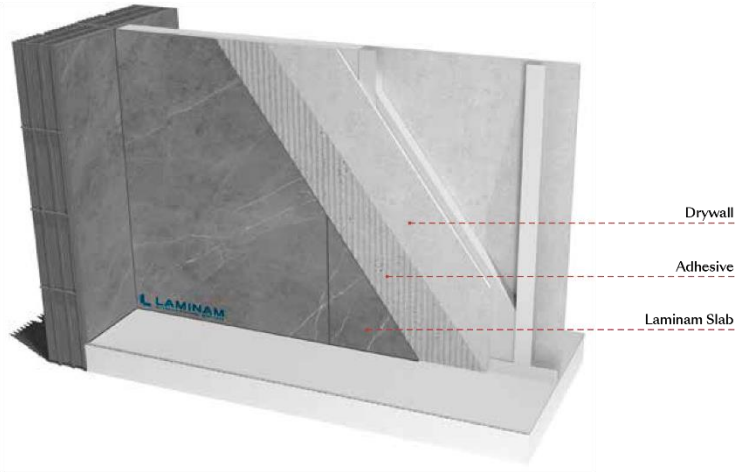
3. Laying Laminam cladding

3.1. Characteristics of the substrate

For correct installation of Laminam slabs, the substrate must comply with the following requirements at the time of installation, indicated in the reference standard UNI 11493-1. If these requirements are not satisfied, it is better to restore them.

Curing	The substrate must be stable and completely cured.
Integrity	The substrate must be complete, free from cracks at the time of installation and also from detached parts.
Strength	The substrate must have a surface resistance that prevents it from showing failures that could result in detachments of elements. At any rate, it is good to verify that the substrate is compact and, if subjected to loads and stress, resistant in the depth of its thickness to bending and compression.
Rigidity	The substrate must be rigid. Based on working loads, its bending deformation values must be within the reference limit.
Planarity	Regardless of the type of substrate, planarity is checked with a method defined in ISO 7976/1 1989, with 2 m long screed: setting the straight edge in all directions, the permissible tolerance is 3 mm. If the substrate is not planar on most of the surface where the slab is to be installed, it must be levelled off or rectified with suitable products. For isolated problems of planarity, correct the spaces by removing or abrading excess parts and filling valleys, also with the same adhesive that will be used at a later time for installing the slabs. 
Surface Finish	The surface finish of a substrate can affect the attachment of adhesive to the substrate. A smooth surface is not favourable. Abrade the surface mechanically to render it rough. In all cases, before performing any type of work on the substrate, it is necessary to carry out all the actions which will guarantee the adhesion of the materials used with the existing substrate.
Humidity	The surface of the substrate must be completely dry to prevent the risk of efflorescence.
Presence of Contaminants	Contaminants (such as cement residue, disarming oils, paints, etc.) must be eliminated with specific systems that will render the laying surface perfectly suited for applying the adhesive.

3.2. Installation on drywall



Laminam can be installed on plasterboard walls, which must be dimensioned based on the height and weight of the envisaged ceramic cladding.

The wall must be treated with a specific primer applied to the surface of the substrate to allow the application of cementitious adhesive.

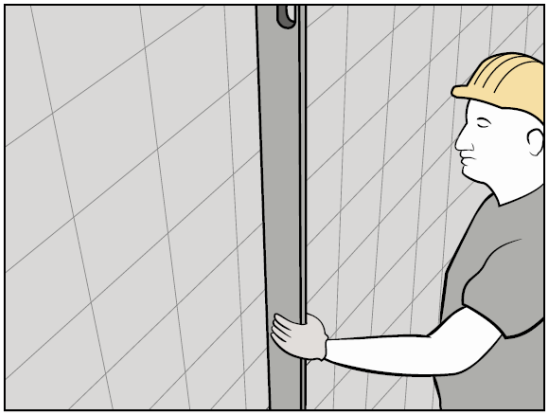
3.3. Adhesive and laying

Use a deformable (C2S1) or highly deformable (C2S2) adhesive depending on the size that is being installed.
Spread a full coat of adhesive, with a double spreading technique, on the substrate and on the slab, being careful to cover the corners and edges. The quantity of glue to use must be directly proportional to the slab size and the substrate characteristics.
The installer will chose the tools to use: we generally advise using a notched trowel 3 mm inclined teeth for the back of the slab and 6-9 mm inclined teeth for the substrate.
The adhesive must be spread in the same direction on the back of the slab and the wall substrate.

The quantity of adhesive must be sufficient to guarantee that the slab is installed without empty spaces and air pockets between it and the wall.

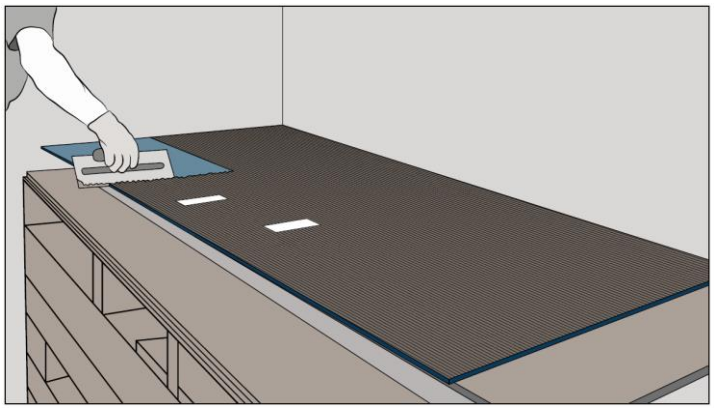
Spread the glue only on the surface that you are working on, each time, and then install the slab, to prevent the formation of surface films that would compromise adhesion.

After installing the ceramic surface, use a rubber mallet to remove all the air from the adhesive.



Check planarity of the existing substrate

Spread adhesive on the existing substrate



Spread adhesive on the back of the slab

We suggest gaps of at least 1/2 mm, assessed based on the slab size, the wall dimensions and the substrate quality.

Before filling the gaps, wait for the glue to dry according to indications from the manufacturer: products with cementitious or epoxy resin base can be used. These types of fillers guarantee greater uniformity and maintain their colour for longer periods of time, but they require careful and fast cleaning.

Installation

Fill the gaps

Always observe the building's structural joints and create expansion joints on the ceramic cladding every 25 m2 at least, with the longest side not exceeding 6 m. Fill gaps around all corners and edges with silicone-based products.

The choice of size and type of the ceramic slabs must be assessed also in consideration of the handling and logistics
allowed at the building site.

We are
designers
of our own
spaces,
seeking
uniqueness.

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