



TINO NATURAL
STONE

RECOMENDACIONES DE COLOCACIÓN STONE SIZE

RECOMMENDED INSTALLATION

The installation process recommended by TINO consists of the adhesion of the Stone Size panels with aluminum Honeycomb base on cement finished walls with good finish and good leveling. The adhesives to be used in this recommended installation are of the Polyurethane family, due to its adhesion properties in the indicated materials.

In the following table are indicated the requirement for the recommended installation:

*CEMENT	< 2mm/m	FINE AND FLAT.	POLYURETHANE	REQUIRED HIGH CONTACT BETWEEN ALUMINUM AND WALL. WALL COVERINGS (I.E. TILES...) MUST BE STRONGLY ADHERED TO THE WALL.
*PLASTER		WITHOUT HOLES		
*TILES				
*BRICKS.		OR MOUNTS.	ADHESIVE	

The steps for the installation process of a wall cladding are listed below.

We recommend to read this manual complete before starting the installation process.

STEP 1. INSTALLATION OF THE FIRST PIECE.

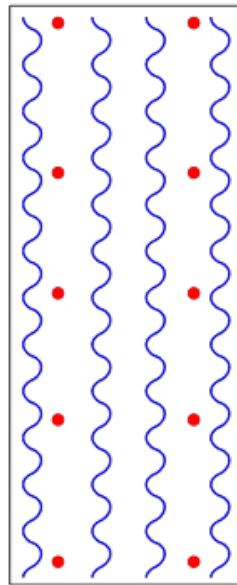
The first piece to be installed is very important as it will be a reference for the rest. The pieces of Stone Size of aluminum can present a slight bow. The correct installation of the first piece allows to flat this slight bow.

For the installation of the first piece, two types of adhesive are necessary:

- Polyurethane adhesive to join the aluminum surface with the wall. See Annex for compatible products.
- Ultra-fast curing adhesive (curing time in minutes) to make several points of attachment of the first piece with the wall. See Annex for compatible products.

The polyurethane adhesive is applied on the back of the piece of aluminum Stone Size following the dosing and application recommendations of the adhesive manufacturer.

At least 6 to 10 spots of ultrafast curing adhesive will be uniformly applied, part of them in the center of the piece.

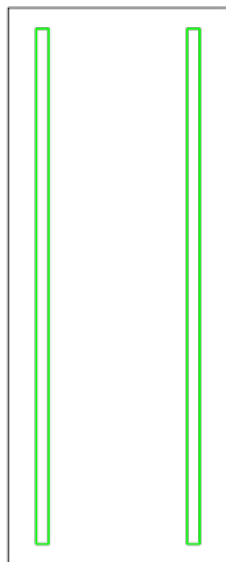


Polyurethane Adhesive

Ultra fast curing Adhesive

FIGURE 1. REAR PART OF THE FIRST PIECE.

To place the piece on the wall, construction rectangular metallic pipes will be used to push the piece in vertical position and bring it to a flat position. Figure 2 shows a possible placement of rectangular metallic pipes on the front of the piece.



Rectangular metallic pipes
to bring the piece to a flat
position

FIGURE 2. FRONT PART OF THE FIRST PIECE.

Depending on the arrangement of elements on site, elements such as other rectangular metallic pipes, or alternative thrust elements (jaws, clamps, construction struts, etc) that can be fixed (to the same wall temporarily or to some other nearby element) will be placed keeping the rectangular metallic pipes pressing the piece in a flat position during at least the curing time of the ultrafast adhesive. To remove the mentioned thrust elements, check beforehand that no movements occur.

STEP 2. PIECES ADJACENT TO THE FIRST PIECE.

Once placed the first piece, for the adjacent pieces to maintain the flat shape that has already been given to the first piece, leveling elements such as those used to level big size porcelanic tiles will be used. Figure 3 shows a possible distribution of these levelling elements

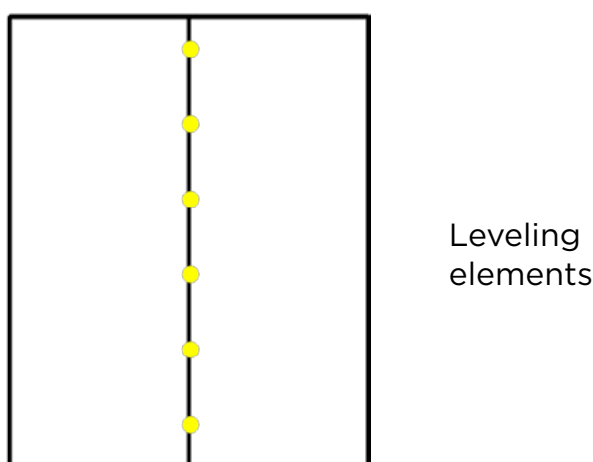


FIGURE 3. FRONT PART OF THE FIRST PIECE AND ADJACENT PIECE.

The leveling elements will remain installed fixing the piece in a flat position during at least the time necessary for the curing of the polyurethane adhesive that sticks the piece to the wall. References of leveling elements are indicated in the Annex.

STEP 3. REST OF PIECES.

They will be installed as the adjacent to the first piece. In case that corner leveling pieces cannot be used, a “First Piece Installation” (step 1) will be done for each wall where this occurs.

STEP 4. JOINTS.

The same joint grout used for natural stone and the same application processes can be used. The minimum joint is 2mm, and may increase depending on the size of the pieces.

OTHER INSTALLATIONS

WALL	FLATNESS	SURFACE FINISH	ADHESIVE	COMMENT
*CEMENT *PLASTER *TILES *BRICKS.	< 2mm/m	FINE AND FLAT, WITHOUT HOLES OR MOUNTS.	POLYURETHANE ADHESIVE	REQUIRED HIGH CONTACT BETWEEN ALUMINUM AND WALL. WALL COVERINGS (I.E. TILES...) MUST BE STRONGLY ADHERED TO THE WALL.
	< 3mm/m	SLIGHTLY ROUGH	1. RESINS MORTAR. 2. CEMENT MORTAR. NEEDS RESIN BOND LAYER	NO COMPLETE CONTACT BETWEEN ALUMINUM AND WALL
GYPSUM BOARD	STRUCTURE FOR THE GYPSUM BOARD MUST WITHSTAND THE LOAD OF STONE SIZE		POLYURETHANE ADHESIVE ADHESIVES FOR GYPSUM BOARD AND COMPATIBLE WITH ADHESION TO ALUMINUM	
WOOD				SUPPORT MUST BE STABLE WITHOUT MOVEMENTS. SPECIFIC GROUTS OR ADHESIVES FOR WOOD AND COMPATIBLE WITH ADHESION TO ALUMINUM MUST BE USED.

ALWAYS FOLLOW THE RECOMMENDATIONS OF POLYURETHANE ADHESIVE AND RESINS OR CEMENT-BASED ADHESIVE MANUFACTURER. ACCORDING TO SURFACES AND ADHESIVES, MAY BE NECESSARY TO USE A “PRIMER”, SUPERFICIAL SANDING, ETC.

The steps to follow for the installation will be the same as in the recommended installation

ANNEX: INSTALATION PRODUCTS

POLIURETHANE ADHESIVES:

In the market there are many references and brands with adhesion capacity on the indicated surfaces. Only some of them are related.

- Sikaflex 11 FC (other references of Sika are valid).
- 3M Fast Cure 550
- 3M Hybrid 760
- Soudal Multibond MS35
- Quilosa PU 50
- Quilosa MS

ULTRAFAST ADHESIVES.

The nature of the surfaces must be taken into account and the curing times must be as short as possible. An example is indicated, but there are many other references.

- Index Mopose. Polyester resin.

LEVELING SYSTEMS.

There are many types: wedge, screw, etc. Some examples are indicated, but there are many other references.

- Peygran.
- Raimondi.
- Tiramisu.
- Wurth.

Product Departament
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