

## INSTALLATION TIPS

Please note that these tips are for guidance only and should be used in addition to relevant standards. Please also note that the installation may vary from place to place depending on the specific conditions of the place (e.g. Ground conditions, edges, paths, wet areas, etc.). The contractor should make use of these suggestions considering whether they are suitable for his specific job and / or require further adjustments. It would be advisable to eventually lay a small portion to evaluate any contraindications. These suggestions are given in good faith and based on our knowledge and experience at the time of their formulation. In no way do these suggestions replace the services of professional installers and / or consultants delegated by the client.

### Material considerations

Sugaroni's range of handmade terracotta bricks is made in the traditional way, using only natural raw materials that are mixed and pressed by hand and then cooked in a wood oven. This artisanal approach to terracotta production means that the bricks supplied, at the time of installation, could vary in appearance from the original sample, as well as from piece to piece. As with any handmade natural material, no two terracotta bricks will be exactly alike, both in color tone as well as in a defined dimensional percentage. The variation is not to be considered as a defect of the material but as a peculiar characteristic.

Our goal is to minimize surprises and help set realistic expectations with installers, contractors and end users.

Before ordering, you must make sure that the customer and the end user understand the characteristics of the material and what they should expect at the time of delivery and installation.

During installation, we suggest mixing the bricks by taking them from all the pallets delivered.

*Some typical installation methods are:*

### Screeds and substrates

In order for an area to be laid correctly, the preparation of the subfloor or foundation it is very important and is the first element to influence the final quality of the flooring. This is because the substrate or "installation support" performs an important function in protecting the surface layer of terracotta. For this we recommend the following:

Pedestrian traffic only: 50 mm thick reinforced concrete

Vehicular traffic: reinforced concrete base thickness 100 mm min. 25MPa

Notes: Always and in any case comply with the indications provided by the DL.

The DL should also consider drainage and / or waterproofing issues minimize the risk of increased humidity, which can bring salts contained in the earth below or in the bedding layers on the surface.

### Slope

When it comes to outdoor terracotta floors, special attention must be paid during planning to respond adequately to storm water runoff. This goes done by dividing the floor field into different drainage surfaces, giving them, if necessary, an effective slope and perfect flatness. This will avoid the stagnation of water and humidity on the surface of the floor, which could cause unwanted and unpleasant effects due to halos, saline efflorescence and accumulation of dirt.

The following slopes are recommended:

Small floor areas: slope > 1%

Large surfaces: slope > 2%

### Expansion joints

Expansion joints are recommended for the substrate (concrete sub-base). The the joints in the concrete base must be continued through the mortar bed e mortar joint. Expansion joints help absorb floor variations caused by sudden changes in temperature and other movements in the substrate, the concrete slab or the adhesive layer. In general, the paved area must be divided into compartments where the technical expansion joints are arranged transversely and / or longitudinally (minimum 5 mm joint width every five meters).

The use of expansion joints will greatly reduce the possibility of appearance of unsightly cracks on the flooring.

### Conservation of terracotta

Preferably store crates indoors, away from direct sunlight and rain, at surface level. Do not stack crates on top of each other.

Substrate drainage

The drainage design must be considered before installation.

### **Weather considerations**

Avoid laying terracotta in extreme weather conditions or in case of rain.

The laying of terracotta on very hot days (above 35 ° C) and on very cold days (below 5 ° C) is not recommended as it is outside the working temperature range of the adhesives.

### **Selection of adhesive for bedding tiles**

It is recommended to use synthetic adhesives for terracotta floor tiles. Research and developed it or adhesives improves continuously. There are many cutting-edge companies with a wide range of products available. They are examples

Mapei and Kerakoll. It is essential to follow the manufacturer's instructions.

### **Laying**

General tips for working with adhesives are as follows:

1. Prepare a perfectly flat substrate (screed) to keep the terracotta elements level with each other, since a thin layer of adhesive (3-6 mm) is used, thus reducing the installation tolerance.
2. Clean the laying surface (remove debris, dust, etc.) once the screed is completely dry.
3. Prepare an even layer of adhesive using a 3, 5, 8 or 10mm notched trowel as needed and spread the base of the tile as well.
4. Lay the terracotta elements in compliance with the times recommended by the adhesive manufacturer, since prolonged exposure to air could lead to the formation of a film with relative loss or decrease in adhesion.

The terracotta bricks are then compacted uniformly on the adhesive layer with a rubber hammer to ensure constant contact with the glue.

Leave coherent joints between 3 and 5 mm, avoiding the use of spacers, since the irregular sides of the artisan product do not require them and allow their use.

It is advisable to prohibit transit on laid surfaces in the following ways: Pedestrian traffic: 2 days; Vehicular traffic: 2-3 weeks.

### **Cutting**

Ideally, it is recommended to perform the cut using a table saw with a wet diamond disc. The terracotta must be washed immediately after cutting to prevent cutting dust from staining the surface of the product.

Crystalline silica (or silica dust) is a common mineral found in soil, sand and Stone. It is also used in the construction of materials such as bricks, tiles, concrete and artificial stone. Exposure to silica can cause a number of health problems, so wear protective gear while using power tools for cutting and drilling such products. However, the guidelines of the POS must be respected.

### **Grouting compound**

It is recommended to use a high quality pre-mixed grouting compound

Suitable for the specific application.

#### *Method of pouring grouting*

1. Moisten the joints with a sponge
2. Place the putty in the joints, making sure there are no gaps, to the full depth of the brick
3. Remove any excess mortar with a trowel
4. Use a sponge to clean the flooring surface with water, making sure to remove all excess grout

#### *Saturation grouting method (use only for outdoor flooring)*

1. Thoroughly wet the surfaces up to total saturation, it is possible to evaluate this saturation by observing the stagnation of water between the joints.
2. Prepare a "grout" of grout and water in the proportions indicated by the manufacturer and spread evenly with a rubber broom on the surfaces, making sure that there are no gaps for the entire depth of the brick. Wait a few minutes to check that the fill level of the joint has not dropped.
3. Use a sponge to clean the floor surface with water, making sure to remove all excess grout before it hardens.

#### *Method with pre-fugant water repellent*

1. Spread an even layer of water repellent with a brush or sprayer, making sure that the surfaces are dry or evenly damp. There are many cutting-edge companies with a wide range of products available. Examples are: Geal and Fila. For methods, quantities and times it is essential to follow the manufacturer's instructions
2. After the time indicated by the manufacturer of the pre-fugant, proceed with grouting using the preferred method among those described above.
3. Use a sponge to clean the floor surface with water, making sure to remove all excess grout before it hardens.

### **Cleaning**

The terracotta must be cleaned when the grout of the joints has pulled. Make sure that all grout residues have been properly removed.

There are many cutting-edge companies with a wide range of products available. Examples are Geal and Fila. For methods, quantities and times it is essential to follow the manufacturer's instructions.

1. Remove excess dirt from the surface using a specific buffered acid in the manner and quantity recommended by the manufacturer of the products.
2. Use a neutral pH detergent and apply to the surface in the quantities recommended by the manufacturer of the cleaning products
4. Remove debris from the surface with a vacuum or floor squeegee.

The use of a cleaning and treatment professional may be appropriate to achieve best results.

### **Treatment**

Treatment is an essential step to protect beauty and ensure the longevity of terracotta.

We always recommend using a treatment professional to contact after installation. If required, Sugaroni has its own team of professional experts.

Research and development of treatment products are continuously improving.

There are many cutting-edge companies with a wide range of products available.

Sugaroni is continuously looking for ecological and highly performing products.

The color and finish may appear different than those seen before applying the treatment.

Note: Sugaroni, except for direct intervention, provides recommendations for treatment products only as a service to consumers. Sugaroni is not responsible and will not be responsible for any complaints regarding treatment products if not applied by itself.

### **FINISHES DESCRIPTION**

The Sugaroni furnace, to fully satisfy the different architectural styles and to make the most of the artisan soul of its products, offers handmade terracotta, as well as in countless sizes and various colours, even in different finishes.

#### **Rough**

Rough terracotta is the brick that comes from the hands of the craftsman and does not undergo any processing either before or after cooking. It is usually used for outdoor flooring, where a high index of slip resistance, resistance to atmospheric agents and frost is required. One of its fundamental characteristics is its thermal stability, which allows it not to become red-hot under the direct rays of the sun. For this reason it remains one of the most used products to create flooring around swimming pools, for pool edges and for external steps. For outdoor application, the Sugaroni furnace recommends not treating the surfaces

#### **Aged**

The aged terracotta is the brick that is worked manually and randomly on the surface before firing. This delicate work gives the flooring a soft appearance to the eye and pleasant to the touch. It releases all the beauty of craftsmanship and is suitable for remarkable and varied living styles. It can be used both indoors and outdoors.

#### **Honed**

The polished terracotta, as the word itself says, is smoothed after cooking by means of a mechanical sander with diamond bristles. This process makes the surface smooth and planar, purely used for indoor environments where you want to give an appearance of classic and refined elegance.

#### **Ancient country house**

The ancient country house finish, achieved by means of the tumbling of the brick, gives the flooring a characteristic lived-in look, making the environment a place where time has stopped. The skills and abilities of designers often manage to insert it in contexts of various kinds.

## **Reclaimed**

This effect is achieved by producing pieces that use different clays and different cooking methods in order to obtain a flooring that reproduces an ancient recovered floor. Much appreciated by those who want to create environments where the flooring is king.