

# Porcelain Paver Installation Guide

Before any project be sure to thoroughly read, and understand all precautions and warnings. The type of installation will depend on traffic, region, and existing substrate.

## Installation Types:

- Gravel or Sand onto Ground (Pedestrian Foot Traffic)
- Gravel or Grass onto Ground (Pedestrian Foot Traffic)
- Cementitious Adhesive Installation onto Concrete Base (Vehicle Traffic)

## Precautions to Be Taken Before Any Form of Installation:

- When lifting product always use assistance, and proper lifting techniques.
- Always call before you dig. It is important to contact all telecommunication and utility companies, in order to mark existing cables and pipes before excavation.
- Always read instruction manual for any equipment before use, and adhere to all safety instructions.
- Always use proper safety equipment when installing 20mm Pavers: e.g. glove, safety goggle, knee pads, and hearing protection.
- Always slope paved surface at least 2% away from buildings or foundations.
- Never use a plate compactor on 20mm pavers.

## **Preliminary Information:**

### **Tile Cutting Lastra Porcelain 20mm**

Always read instruction manual for any equipment before use, and adhere to all safety instructions.

Due to the thickness and natural hardness of porcelain, 20mm pavers require a wet saw with a minimum of 1.5 HP, and a 10" (25 cm) diamond blade. Take into consideration the length of cut when choosing the appropriate saw.

Be aware that all cut porcelain edges can be very sharp; handle with care.



### **Handling of Porcelain 20mm**



Installation, removal and handling of tiles for the raised installation can be carried out using a suitable metal handle. When lifting product always use assistance, and proper lifting techniques.

## **Cleaning and Maintenance**

Cleaning and maintenance procedures can be carried out using a common neutral detergent and a direct water jet. Inclined surfaces and the presence of open joints between pavers allows for the collection of dirt near the discharge points.

Please note that because of surface tension in liquids, a water patina can form on any outdoor surface even when inclined properly. To avoid water patina on the surface of the material it is important to completely dry the surface; push the water towards joints using a scrubbing-brush or use a wet and dry vacuum cleaner.

When cleaning the surface of the pavers be sure to use a brush or broom with soft nylon bristles.

## **Gravel or Sand onto Ground (Pedestrian Foot Traffic)**

Before any project be sure to thoroughly read, and understand all precautions and warnings.



## **Excavation**

Always call before you dig. It is important to notify all telecommunication and utility companies in order to mark existing cables and pipes before any excavation.

When digging make sure to dig a depth that will include the entire base. The depth of the base will be determined by preexisting soil and climate conditions in your area.

## **Soil Compaction**

Compact the soil ensuring a minimum of 2% slope away from buildings and foundations. This will increase the load bearing strength of the soil, and minimize movement due to freezing or thawing and other seasonal changes.

## **Geotextile Install and Sub-Base**

Cover the top and the sides of the excavated area with a geotextile fabric to prevent the dispersions of the substrate, and to allow for drainage. Select the geotextile according to project specification, and the indications of the geotextile producer.

Prepare a sub-base made up of  $\frac{3}{4}$ " crushed stone to allow for drainage and stability. It should be installed in 4" (10 cm) lifts. Compact the sub-base with a vibrating plate compactor and level off with a minimum inclination of 2%.

Cover the top of the prepared sub-base with geotextile fabric also according to project specification, and the indications of the geotextile producer. This will increase the stability and the longevity of the installation.



### **Preparation of Setting Bed**

Lay screed rails parallel every couple of feet. Fill with torpedo sand (ASTM C33) to a depth of 1" (3 cm), and pass flat board over screed rails to level out sand base. Remove screed rails and fill gaps with paver sand, and level. Gently mist, and compact using a vibrating plate compactor. Be sure to allow for at least a 2% slope for drainage in the appropriate direction.

### **Edge Restraint**

Install edge restraints according to project specifications, and the indications of the restraint producer.

Take into account the depth of the setting bed and the height of the paving slab when choosing an appropriate edge restraint.



### **Laying Pavers**

Select size and color of the pavers and install them on the prepared surface. Complete the laying scheme according to the project specifications or to your preferences.

To achieve a more natural look randomly select pavers from different boxes. This will maximize the effect of shade variation on the installed surface.

Always leave a joint between the slabs of at least 4mm, while using proper plastic spacers (pictured below). This will avoid porcelain to porcelain contact.



## Filling in the Joints



Select size and color of the pavers and install them on the prepared surface. Complete the laying scheme according to the project specifications or to your preferences.

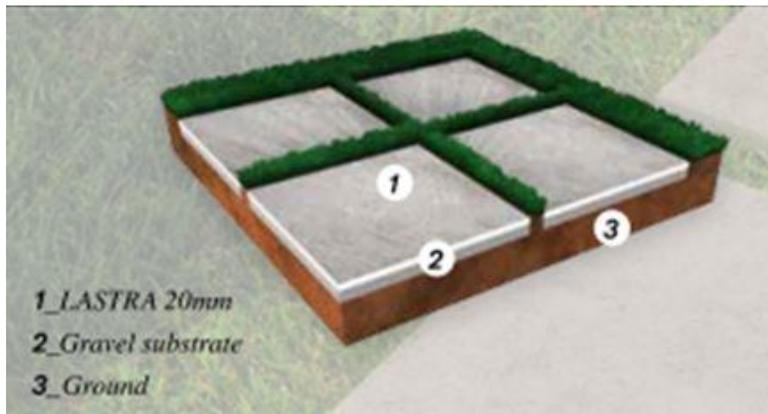
To achieve a more natural look randomly select pavers from different boxes. This will maximize the effect of shade variation on the installed surface.

Always leave a joint between the slabs of at least 4mm, while using proper plastic spacers (pictured below). This will avoid porcelain to porcelain contact.

Use a polymeric sand or polymeric dust (for joints over 1") (25 mm). Polymeric sand should be installed according to the instructions provided by the producer.

Never use a vibrating plate compactor on the paved surface. Instead use a rubber/PVC mallet.





## **Garden Pathway onto Grass** **(Stepping Stones or Pedestrian Foot Traffic)**

Before any project be sure to thoroughly read, and understand all precautions and warnings.

### **Excavation**

Always call before you dig. It is important to notify all telecommunication and utility companies in order to mark existing cables and pipes before any excavation. Excavate an area the size of the paver to a depth of 3" to 4" (8-10 cm). Leave a gap of at least  $\frac{3}{4}$ " (2 cm) between each paver and excavated area. Compact the soil thoroughly with a hand tamper.

### **Base**

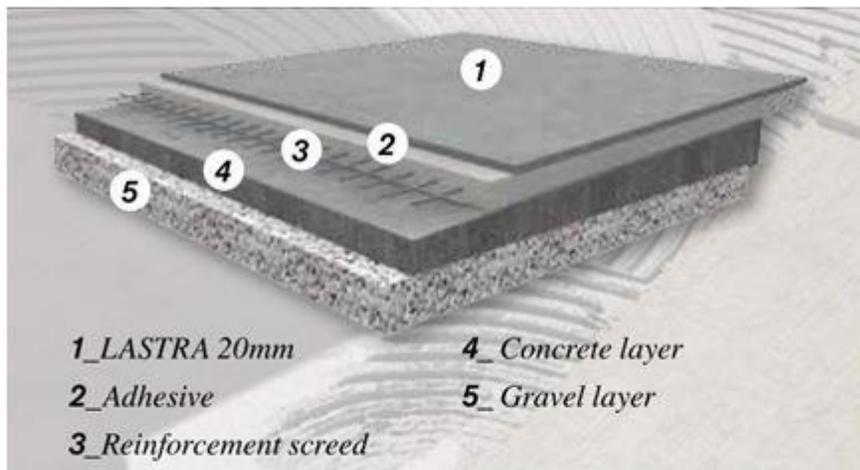
Prepare a base made up of torpedo sand (ASTM C33) to allow for drainage and stability. It should be compacted using a hand tamper and levelled off.

### **Installation of Slabs**

Select size and color of the pavers and install them on the prepared surface. Complete the laying scheme according to the project specifications or to your preferences.

To achieve a more natural look randomly select pavers from different boxes. This will maximize the effect of shade variation on the installed surface.

Lay Pavers on the prepared base, and then use a rubber/PVC mallet to help the pavers adhere to the support.



## **Cementitious Adhesive Installation onto Concrete Base (Vehicle Traffic)**

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### **Installation of Pavers**

Concrete base must meet all building code requirements for installation area, and must have a slope of 2% away from any buildings or foundations

Do not install pavers directly over control joint on the concrete base. Otherwise expansion and contraction of the control joint due to freezing and thawing could damage the pavers.

Install the pavers with the double spreading method while using highly deformable cement-based premium adhesives (class C2S2 in compliance with ISO 13007).

### **Joints**

Place the pavers leaving a joint of at least 5mm between each one using cement-based premium mortars (class CG2 in compliance with ISO 13007).

### **Cleaning**

Please refer to the Atlas Concorde website cleaning instructions under PRELIMINARY PROCEDURES AND POST-INSTALLATION CLEANING for Textured/Anti-Slip, or under DAILY CLEANING for Textured/Anti Slip.

### **Information Provided by Atlas Concorde**