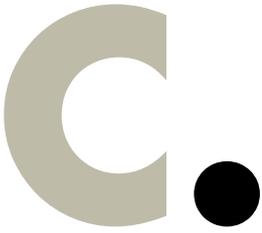


# Tips for Installation

## Cobblestones



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## Cobblestones.

**Variation has been carefully considered when producing our surface collections. Colour, tone, composition, and texture are all naturally occurring characteristics of stone and will always differ from piece to piece. Variation may also result in significant inconsistencies when delivered product is compared to any samples presented. That said, variation is in no way considered a material defect. It's precisely what makes stone so uniquely beautiful. Please take this into account when assessing the suitability of any Gather Co surface.**

**It is always recommended to mix all batches supplied for a single installation to ensure natural variation is seamlessly blended.**

### INSTALLATION FORETHOUGHTS

When selecting any product within the Gather Co collection, consideration must be given to ensure each product is suitable for the intended application.

Gather Co is pleased to provide the following advice in addition to the product sale. In almost all cases, we recommend following the advice of qualified and experienced construction professionals. These tips are to be used in conjunction with the relevant Australian Standards including (*but not limited to*) AS3958.1 & 2 and all corresponding manufacturers instructions.

Gather Co recommends sampling installation procedures prior to commencing site works, to ensure appropriate measures have been addressed.

Gather Co has partnered with highly reputable industry leaders to supply the very best in waterproofing, grouts, adhesive and sealing products. When using our recommended products, it is always advised to follow the manufacturers guides and specifications.

Our recommended brands are:

**Waterproofing/Adhesives/Grouts:**

LATICRETE®: 1800 331 012 / [www.laticrete.com.au](http://www.laticrete.com.au)

**Sealers:**

AQUAMIX®: 1300 278 264 / [www.aquamix.com.au](http://www.aquamix.com.au)

When deciding on suitable product the following should be taken into account:

### Storage

Once delivered, uninstalled product must always remain completely protected from all weather exposure including direct sunlight. Single stacking of pallets and crates on firm, level ground is also essential.

### Drainage Forethoughts

Pre site evaluations will determine the necessary drainage requirements for any given project. Seeking advice/service from qualified engineers and construction professionals will ultimately assist in the best outcome. Sufficient drainage is essential to ensuring the longevity of any installation. Rising moisture should always be considered when designing any flooring as this can often be the cause of salt transfer and efflorescence at the surface. Adequate measures must be applied. This involves implementing adequate 'run off' slope gradients and effective drainage points to promote effective moisture dispersal.

### Substrates & Foundation Works

Ensuring a high quality finish involves starting with a high quality substrate. Special consideration needs to be given to determine the level of traffic that is intended for the installation.

When considering concrete substrates, always seek direction from a qualified structural engineer. A general guide for slab thickness is as follows:

- 75mm min with reinforcement for pedestrian traffic.
- 100mm min with reinforcement for vehicle traffic.

Typically, a minimum strength of 25mpa must be achieved. Concrete or any other masonry substrates should be dry and not have a moisture equilibrium greater than 75% relative humidity as measured with moisture probes.

Another key consideration should be to ensure the ground material under the slab is of suitable stability. When earthworks and drainage has been completed, it is vital to ensure the ground under the slab is well compacted, 'soft' spots have been addressed and water flow is managed to prevent issues arising once slab and flooring have been laid.

Curing time for the concrete needs to be given the relevant considerations also.

### Movement Joints

Movement or control joints are an essential component of hard surface installations. Their purpose is to manage the effects of expansion and contraction, a primary cause of surface cracking. Joints must be maintained, without interruption from the concrete substrate, through the mortar bed and finally, to a flexible sealed joint at the flooring surface. Additional joints divided into 20m<sup>2</sup> grid sections should also be applied to the mortar bed and top surface (*tile, paver, cobbles, crazy paving etc*). These supplementary joints are independent of the concrete substrate and typically range from 5-10mm in width. Always seek the direction of a qualified structural engineer when designing the set-out for movement joints.

## Waterproofing & Moisture Management

As part of the substrate design process, consideration must be given to waterproofing and moisture management. Attention to both issues will assist in:

- Minimising the development of surface efflorescence.
- Reducing swelling in the substrate caused by sustained moisture exposure.

Gather Co always recommends the application of Laticrete's full Hydro Ban System.

LATICRETE®: 1800 331 012 / [www.laticrete.com.au](http://www.laticrete.com.au)

## Weather Conditions

Another important consideration for the installation process is weather. Temperatures over 30 degrees celsius may result in loss of moisture and rapid shrinking of the bonding and adhesive layers. Alternatively, rain can add excessive moisture, causing wetter, weaker bonds. For best laying conditions, follow manufacturers specs for your favoured product(s).

## Pre-Sealing

The process of dip sealing (sealing all six sides) prior to laying certain surfaces, particularly around pools, is essential. Surfaces that are more porous or moisture sensitive may also require sealing prior to being laid.

Always seek manufacturers advice before pre-sealing to ensure the correct product is used and that the process won't affect the bond of the chosen adhesive. An example of a quality pre sealer is ProBlock from Aqua Mix.

AQUAMIX®: 1300 278 264 / [www.aquamix.com.au](http://www.aquamix.com.au)

Please refer to the: "How to Dip Seal Surfaces" downloadable document for direction on this procedure.

## Pools & Wet Areas

In areas where exposure to water is significant or the product is highly porous, it is essential to dip seal prior to installation. Pool surrounds are a good example of this and almost all materials respond well when dip sealed prior to these applications. ProBlock from Aqua Mix is a high quality pre-sealer.

Please refer to the: "How to Dip Seal Surfaces" downloadable document for direction on this procedure, or contact Aqua Mix directly:

AQUAMIX®: 1300 278 264 / [www.aquamix.com.au](http://www.aquamix.com.au)

## INSTALLATION

In general terms, flooring installations typically employ one of the two following procedures. Gather Co offers details on each procedure listed below as a guide only. Ultimately, all decisions attaining to the most appropriate method of installation, fall to the installer.

### Bedding Method

The Gather Co cobblestone range is largely prepared by hand. Hand splitting as part of the production process typically yields stock with a thickness fluctuation greater than 3mm. This variation has been accounted for in the design and manufacturing of our collection and is no way considered a flaw. Varieties that exceed a +/-3mm thickness deviation should employ the 'wet bed' method of installation. Where a maximum inconsistency of less than +/- 3mm is maintained, the standard 'direct adhesive' method may be applied.

### Wet Bed Installation Method

Gather Co suggests the application this method when installing Full Format cobblestones. Any variety from our Thin Format collection that exceeds a 3mm thickness variation should also employ this method.

Cleanliness prior to and during installation is vital. To ensure a positive bond is successfully established, thoroughly clear the concrete substrate of all contaminants, including dust.

#### Wet Bed Mortar Composition:

3 parts coarse washed sand (*as per Aust. Standards*).  
1 part cement (*type GP cement*).  
1 part clean water.

Gradually combine slurry components with a paddle mixer or in a barrel cement mixer. Mixing must be sustained until all lumps are expelled and material is completely blended.

Where necessary, mix in additional water to achieve the desired consistency. A bonding agent such as Laticrete Everbond may also be used to further improve adhesive strength and workability. Contact Laticrete directly for further direction:

LATICRETE®: 1800 331 012 / [www.laticrete.com.au](http://www.laticrete.com.au)

#### Slurry Bond Coat Composition:

Cement and water combined into malleable paste.

#### Laying Technique:

General installation tips for working with wet bed mortar are as follows:

1. Thoroughly clean all contaminants from the concrete slab prior to beginning installation.
2. Distribute wet bed bonding slurry to the concrete slab in a consistent 1-2mm thick layer.
3. Apply the wet bed mortar mix. This layer should be evenly spread, with no voids and at a consistent thickness of 25mm.
4. Clean and remove all contaminants from the back of the stone before laying.

5. Evenly spread bonding slurry to the back of the stone in a consistent 1-2mm coating.
6. Position stones and use a rubber mallet to gently manoeuvre each piece into its final setting. Always ensure no air voids are captured under newly seated product as this will compromise support and adhesion.
7. Use spirit level tool to ensure desired levels are maintained.
8. Apply spacers to maintain consistent grout-joint openings.
9. Fill all voids around newly seated product and discard any excess slurry.
10. Proactively clean any surface contamination from newly installed product. This must be done immediately and with care to ensure no staining or unsightly marks are left.
11. Only work in small controlled areas to ensure slurry does not dry before product can be laid.

## Adhesive Installation Method

Gather Co has partnered with Laticrete to supply the very best in adhesive products. For standard installations with no special considerations, we suggest the use of:

- Laticrete 335 Premium Flexible Adhesive or
- Laticrete 335 Rapid Premium Flexible Adhesive (*for moisture sensitive surfaces*).

Gather Co only suggests the application this installation method for varieties within our Thin Format cobblestone collection that maintain a maximum thickness variation of less than 3mm.

It is crucial to follow all procedures and specifications as detailed by Laticrete when applying these products. For further direction, consult Laticrete directly:

LATICRETE®: 1800 331 012 / [www.laticrete.com.au](http://www.laticrete.com.au)

### Adhesive Composition:

Place potable water into a clean pail and add adhesive powder. Mix by hand or with a slow speed paddle mixer until a smooth, trowelable consistency is achieved. Use approximately 5 – 5.5 litres of water per 20kg bag. Allow adhesive to slake for 5 –10 minutes. Mix again without adding any more water or powder.

### Laying Technique:

General installation tips for working with our suggested adhesives are as follows:

1. Thoroughly clean all contaminants from the concrete slab and/or screed bed prior to beginning installation.
2. Apply a consistent layer of adhesive using a suitable notch trowel at 8-10mm thick. Then, back butter the reverse side of each stone to be installed. Only spread as much adhesive as can be laid in 10 - 15 minutes or whilst adhesive is wet and tacky.
3. Position stones and use a rubber mallet to gently manoeuvre each piece into its final setting. Always ensure no significant voids are captured under newly seated product as this will compromise support and adhesion.
4. Use spirit level tool to ensure desired levels are maintained.
5. Apply spacers to maintain consistent grout-joint openings.

6. Proactively clean any surface contamination from newly installed product. This must be done immediately and with care to ensure no staining or unsightly marks are left.
7. Only work in small controlled areas to ensure adhesive does not dry before product can be laid.

## Cutting

Cutting of stone is most effective when carried out with a sharp diamond blade. We strongly recommend the use of a high quality wet bench saw. Always wash each piece directly after every cut to avoid saw residue accumulating and drying to stain the exposed surface.

**WARNING:** Crystalline Silica (or silica dust) is a naturally occurring mineral found in soil, sand and stone. It is also commonly used in the manufacturing of countless construction materials including bricks, porcelain and terracotta. Silica exposure has been extensively documented to cause a broad range of serious health issues. Adequate PPE is essential when engaging in any kind of contact with Silica dust. Furthermore, appropriate safety guidelines relating to silica exposure must always be adhered to on all construction sites.

## Sealing

Sealing is an essential step in the installation process and paramount to maintaining the aesthetic of stone surfaces.

Gather Co has partnered with Aqua Mix to supply the very best in sealing products. Sealers Choice Gold is their premium natural look sealer and does not alter the stones raw appearance.

Sealing should always be carried out in two phases.

1. Once product has been laid and prior to grouting.
2. Following grouting and only after the final surface clean up has been thoroughly completed.

It is always our recommendation to follow the direct guidance of Aqua Mix when applying any of their products:

AQUAMIX®: 1300 278 264 / [www.aquamix.com.au](http://www.aquamix.com.au)

## Grouting

Grout application is the important final stage to 'locking in' newly installed surfaces. We suggest the following method to be applied in partnership with pre-bagged Permacolour grout by Laticrete:

1. Thoroughly clean all vacant joints prior to grouting.
2. Apply grout to joints, ensuring the entire recess is completely filled.
3. Immediately remove any significant grout excess with trowel tool.
4. Sponge the entire exposed surface with clean water.
5. Follow cure times as dictated by manufacturer.

For superior results, always follow Laticrete's corresponding specs and guidelines:

LATICRETE®: 1800 331 012 / [www.laticrete.com.au](http://www.laticrete.com.au)

## Clean Up

Final clean up should only occur once all grout joints have completely cured:

1. Sweep all loose contamination from installed surface.
2. Generously apply a pH neutral cleaner to the installed surface.
3. Gently agitate the surface with a stiff broom.
4. Remove all residue from surface with a wet-vac or squeegee.
5. DO NOT use acidic cleaners without engaging a qualified and experienced stone cleaning professional. Stone Deep Clean from Aqua Mix is a non-acid, biodegradable formula that is great for natural stone surfaces.

Contact Aqua Mix directly for further direction on their range of surface cleaning products:

AQUAMIX@: 1300 278 264 / [www.aquamix.com.au](http://www.aquamix.com.au)

## Cure Periods

Recommended minimum cure periods for new installations, under standard conditions (21° C) are as follows:

- Pedestrian traffic: 2 days.
- Vehicular traffic: 3 weeks.

## Maintenance

Ongoing maintenance will vary from surface to surface. Regular cleaning will reduce the risk and signs of dirt, mould and efflorescence. Stone Deep Clean from Aqua Mix is a non-acid, biodegradable formula that is great for natural stone surfaces. A cleaning professional should only attempt the use of acid based products on stone surfaces.

Finally, in domestic settings, reapplication of Sealers Choice Gold by Aqua Mix will need to occur approximately every 8-10 years for internal areas and, 6-8 years for external areas.

***Please note: these periods are heavily dependant on wear and may reduce significantly in commercial settings.***

For further advice, please contact Aqua Mix directly:

AQUAMIX@: 1300 278 264 / [www.aquamix.com.au](http://www.aquamix.com.au)

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