## Cather (°o

# Tips For Installation

Terracotta



## Meeting Expectations

#### **Product Variation**

The Gather Co collection of antique terracotta is entirely repurposed. Originally used to tile roofs across Europe, we have partnered with specialist contractors to collect, process and import these stunning relics. Texture, wear, composition, and colour are all a result of the traditional techniques originally employed to manufacture this product. Authentic antiques, the ageing process has also worked to further enhance the terracottas genuine aesthetic.

We have divided our terracotta into "Light" and "Dark" tones to help manage colour inconsistency. It must still be accepted that even within these segregations, significant variation exists.

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 our terracotta so uniquely beautiful. Please take this into account when assessing the suitability of any Gather Co surface.

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

We do not recommend installing our terracotta where ever vehicular traffic is possible or anticipated.

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#### 1. INSTALLATION FORETHOUGHTS

When selecting any product across the Gather Co collection, consideration must be given to ensure each product is appropriate 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 direction 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, as well as all corresponding instructions from our supply partners.

Gather Co recommends sampling installation procedures prior to commencing any site works. This prerequisite will ensure appropriate measures have all been adequately addressed.

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

#### 1.1 Supply Partners

Our recommended installation accessory brands are:

- LATICRETE®: 1800 331 012 / www.laticrete.com.au
- ARDEX®: 1800 224 070 / www.ardexaustralia.com
- ACTICHEM™: 1300 278 264 / actichem.com.au

When deciding on suitable products, the following must be taken into account:

#### 1.2 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.

#### 1.3 Drainage

Pre site evaluations will determine the necessary drainage requirements for any given project. Seeking advice/service from qualified engineers and construction professionals will ultimately assure the desired outcome is achieved. 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 positive moisture dispersal.

#### 1.4 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 substrates should be dry and not have a moisture equilibrium greater than 75% relative humidity as measured with correctly calibrated moisture probes.

Another key consideration should be to ensure the ground material under the slab is of suitable stability. When earthworks and drainage have 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 the slab and flooring have been laid.

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

#### 1.5 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 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, wall cladding 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.



#### 1.6 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

#### 1.7 Weather Conditions

Another important consideration for the installation process is weather. Temperatures over 30 degrees celsius may result a in loss of moisture and rapid shrinking of the bonding and adhesive layers. Alternatively, rain can add excessive moisture, causing wetter, weaker bonds. Always work within the atmospheric perimeters, as specified by our supply partners, whenever applying their product(s).

#### 1.8 Pre-Sealing

The process of dip sealing (sealing all six sides) prior to laying certain surfaces, in particularly harsh environments, may be a consideration. Surfaces's that are highly porous or moisture sensitive may also require pre-sealing prior to installation.

Always seek manufacturers advice before presealing, 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 Defender CSD 50 from Actichem.

ACTICHEM™: 1300 278 264 / actichem.com.au

Please refer to our sealing guidelines for direction on the applicable sealers and procedure.

#### 1.9 Pools & Wet Areas

In areas where exposure to water is significant or the product is highly porous, it is essential to apply a quality synthetic consolidating sealer. This sealer must also encompass strong properties of moisture repellency . Pool surrounds and bathrooms are examples of where added protection is absolutely necessary. Defender CSD 50 from Actichem is our recommendation for sealing surfaces in these harsh environments.

Please refer to the applicable sealing guideline for direction on appropriate sealers and the and full procedure, or contact Actichem directly:

ACTICHEM™: 1300 278 264 / actichem.com.au

#### 2. INSTALLATION GUIDE

Gather Co is pleased to offer direction on the adhesive installation method as a guide only. Ultimately, all decisions attaining to the most appropriate method of installation, fall to the installer.

#### 2.1 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).

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

#### 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 terracotta and 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 groutjoint openings.
- 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.



 Only work in small controlled areas to ensure adhesive does not dry before product can be laid.

#### 2.2 Cutting

Cutting terracotta 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

#### 2.3 Sealing

Sealing is an essential step in the installation process and paramount to maintaining the aesthetic/integrity of terracotta.

Gather Co has partnered with Actichem to supply the very best in sealing products.

Sealing terracotta should always be carried out over three primary phases:

- Once the terracotta has been laid and <u>prior</u> to grouting, an initial coat of Actichem Defender CSD 50 consolidating sealer should be applied.
- 2. Following grouting and only after a comprehensive surface clean has been thoroughly completed, the second coat of Actichem Defender CSD 50 may be applied.
- 3. Finally, after a full 14 day curing period, a concluding application of Actichem Solv Sealer Gold must then be carried out.

In partnership with Actichem, we have prepared a detailed method for sealing our terracotta. You can access a copy of this procedure via our website, or by contacting a member of our sales team. Please closely refer to the outlined procedure before carrying out any sealing works.

Furthermore, it is also our recommendation to consult directly with Actichem, when applying any of their products:

ACTICHEM™: 1300 278 264 / actichem.com.au

#### 2.4 Grouting

Grout application is an important final stage to 'locking in' newly installed surfaces. We recommend the following Ardex products:

**FG-8** - standard cement grout for joints up to 8mm in width.

**WJ-50** - specially formulated cement grout for wide joint openings of above 9mm in width.

The procedure for applying these products is as follows:

- Thoroughly clean all vacant joints prior to grouting.
- 2. Apply grout to joints, ensuring the entire void 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 Ardex.

For superior results, always follow Ardex's specifications and guidelines:

ARDEX®: 1800 224 070 / www.ardexaustralia.com

#### 2.5 Clean Up

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

- 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 wetvac or squeegee.
- 5. DO NOT use acidic cleaners without engaging a qualified and experienced stone cleaning professional. ProNeutro from Actichem is a new generation, neutral pH detergent that is great for natural stone surfaces.

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

ACTICHEM™: 1300 278 264 / actichem.com.au

#### 2.6 Cure Periods

Under standard conditions (21° C), adopt a minimum 2 day cure period.



#### 3. MAINTENANCE OVERVIEW

Ongoing maintenance regimes may vary from surface to surface. Regular cleaning will reduce the risk of soiling through dirt, mould and efflorescence. Please refer to our "Maintenance Guide" document for further detail on compatible products and best practice for ongoing care regimes.

#### 3.1 Cleaning

ProNeutro from Actichem is a new generation, neutral pH detergent that is great for terracotta surfaces. A cleaning professional should only attempt the use of acid based products on terracotta.

For further advice, please contact Actichem directly:

ACTICHEM™: 1300 278 264 / actichem.com.au

#### 3.2 Re-Sealing

Both Solv Sealer Gold & Defender CSD 50 by Actichem will provide ultimate protection for up to 15 years. That said, application methods, weather conditions, traffic and invasive cleaning chemicals may significantly reduce this timespan. We highly recommended sealers be re-applied every 5 – 7 years in commercial settings or where harsh conditions exist.

For further advice, please contact Actichem directly:

ACTICHEM™: 1300 278 264 / actichem.com.au



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