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# ECO OUTDOOR INSTALLATION TIPS

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WALLING  
PEBBLES

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FLOORING • WALLING • FURNITURE

LOS ANGELES • SAN FRANCISCO  
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### INSTALLATIONS TIPS

*Please note these tips are guides only and should be used in addition to the relevant American Standards for trade practices. Note that installation may vary from site to site with varying conditions experienced on that site (i.e. Soil conditions, pool surrounds, driveways, wet areas etc.). The contractor and specifier should decide if these suggestions are suitable for their application or require further adjustment. A site sample of the proposed method of installation should be completed to ensure that this method is appropriate for the site conditions. These tips are given in good faith and to the best of our knowledge and experience at the time of printing. In no way do these tips replace the services of professional contractors and/or consultants.*

#### Material Considerations

Natural stone wears the markings of thousands of years of formation, through extreme weather and climate conditions with sands, oxides and minerals from the earth and the sea. Materials vary in appearance from original sample and from piece to piece upon installation. As with any natural material, no two pieces of natural stone will be exactly alike. Color, as well as percentage, size and shape of markings, will vary. Variation is not a material flaw. It's not that we accept imperfections, the imperfection is the point.

Our goal is to minimize surprises and help set realistic expectations with specifiers, contractors and end users. Prior to ordering, ensure that consideration has been made to understand what variation you might expect when this material is delivered and installed.

We suggest blending pebbles from all bags delivered whilst laying.

Some typical installation methods are:

#### Substrate/Wall

The background structure must be structurally sound and suitable for the stone installation. This may require an engineer's structural certification.

For concrete, blockwork or brickwork walls, the surface must be even and true, with a variance of no more than 1/16" every 12 feet. If the wall is not true, a render should be applied as per the manufacturer's recommendations. The surface should be free from movement, oils, grease, waxes, paints, curing compounds and any other loose contaminating materials.

New concrete must be allowed to cure for 6 weeks, should have a wood float finish and be free of any laitance.

Old concrete should be cleaned of all laitance and have a keyable surface.

For tilt-up concrete panels, it is vital that all residues from release agents etc. are removed from the panel prior to the application of any tile adhesive. Mechanical fixings such as a shelf, pin or tie back system may be necessary.

#### Control Joints

Control joints should be used in the following areas:

1. Over movement joints in the background and over weakened plane joints.
2. At a junction between different background materials.
3. At fixtures interrupting the stone surface, e.g. columns and beams.

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4. At internal vertical corners.
5. At all horizontal joints and vertical joints (Approximately 9 to 15 feet apart). Foundations/Substrates

### Render

All render should be liquid modified and bonded as per the manufacturer's instructions.

The render should be true to a tolerance of +/-16" in 12 feet. It is essential to have a keyable finish.

The render should be finished no thicker than 3/4" and no single coat should be less than 5/16" or more than 10/16".

Render should be allowed to fully cure before application of stone.

### Storage

Ideally store crates indoors away from direct sunlight and rain and on a level surface. Do not stack crates on top of one another.

### Membranes, Cracking & Moisture Management:

Drainage design and membranes should be considered prior to installation. This is to assist in dealing with efflorescence and other moisture-related issues, as well as helping to reduce minor cracking by neutralising movement in the substrate. Examples are Aquadefense (Mapei helpline 1800 652 666), Hydro Ban (Laticrete helpline 1800 331) or Red Gard (Custom helpline 800-272-8786).

### Weather Consideration

Avoid laying pebbles in extreme weather conditions, or if rain is expected.

Laying pebbles on very hot days (above approx. 85F) can cause delamination issues between stone and adhesive bedding layer.

### Selection of Adhesive for Bedding Stone Elements

We recommend using synthetic tile adhesives to bed stone elements. Research and development of adhesives are continually improving. There are many reputable companies with a wide range of products available. Examples are Mapei (p: 1 800 992 6273) and Laticrete (p: 1 800 243 4788). It is essential to follow manufactures instructions.

In certain environments, fast setting tile adhesives (such as Granirapid by Mapei) should be used.

### Laying of Pebbles

General tips in working with adhesives are as follows:

1. Ensure pebbles are clean and free of dust and other contaminants.
2. Spread the adhesive using a 3/8" x 3/8" to 1/2" x 1/2" notched trowel, making sure there is at least a 2mm final bed thickness and full coverage of the stone surface.
3. Place pebbles into adhesive to desired spacing and pattern.
4. The adhesive should not be allowed to skin prior to bedding of the pebbles. Work within controlled areas, to ensure the pebbles are applied promptly to the adhesive bed (refer to manufacturer's specifications).

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5. To ensure that full coverage is being maintained, a sample pebble should be removed, the adhesive coverage noted and the pebble re-laid accordingly.
6. Sponge off any residual tile adhesive immediately.
7. Once pebbles are laid, they must not be disturbed for at least 24 hours.
8. Care should be taken to ensure that vertical progression is appropriate (i.e. Don't install too high too quickly).
9. Generally pebbles are not grouted.

For site specific requirements we suggest you contact Mapei p: 1 800 992 6273 or Laticrete p: 1 800 243 478.

ALWAYS CONSULT AN ENGINEER WHEN UNSURE

### Sealing

Sealing is an essential step in protecting the beauty and ensuring the longevity of any Eco Outdoor stone.

We always recommend using a cleaning and sealing professional after the stone has been installed. Please call us for a list of recommended professionals.

Research and development of sealing products are continually improving. There are many reputable companies with a wide range of products available. Examples are Dry Treat ([www.drytreat.com](http://www.drytreat.com)) and Aquamix ([www.aquamix.com](http://www.aquamix.com)).

We recommend using high quality penetrating sealers such as Stain Proof (Dry Treat), Ultra Solve (Aquamix) or Sealers Choice Gold (Aquamix).

Please note: Eco Outdoor provides recommendations for sealing products as a service to consumers only. Eco Outdoor does not warranty and will not be responsible for any claims regarding sealers.