



Sandstone and Pre-Cast Concrete

PRODUCT INFORMATION AND CARE INSTRUCTIONS

Unique Product Characteristics

- Benzini sandstone and concrete products are hand-made using traditional craftsmanship techniques and natural materials. As a result variations, which may affect surface texture, colour and thickness can occur.
- Sandstone ornamental pieces and Mediterranean paving range are dry-cast. This refers to the aggregate mix being a very low water level making the product stronger. The dry-mix is then rammed or compressed into moulds. The Atlantic stone paver range is wet-cast using low levels of water:cement ratio to maintain strength.
- Many Benzini pieces are steel reinforced to give them added strength e.g. pots, urns pedestals.
- Benzini products are manufactured at Nerang on the Gold Coast using locally sourced aggregates, sandstone and natural pigments.

General Guidelines Only

- This information is provided as a guide in addition to relevant Australian Standards and Association and industry practices.
- Installation methods can vary for each project.
- These guidelines do not replace the services of professional consultants &/or contractors.

Transportation & Storage

- Benzini products leave the factory well wrapped and packaged.
- Keep product well protected prior to installation.
- Do not install any product that is thought to be defective. Please contact Benzini if any problems are found.
- Product that has been relocated from the place of delivery or following collection from the factory will not be considered under any circumstances in the event of a return.

Product Handling

- Careful handling is required at all times.
- Use clean hands or gloves at all times to avoid unnecessarily marking of the product.
- Avoid contacting sandstone products with rubber hoses, wheelbarrows, shoes/boots etc as they could mark the product.
- As most Benzini products are heavy, lifting and carrying is to be carried out with great care and proper workplace health and safety procedures should be used.
- Take great care when placing items down as to not chip corners.

PAVERS and POOL COPING

General

- Should the paving order be greater than one pallet the pallets must be blended during laying.
- Benzini does not accept responsibility for normal-natural variations.
- All pallets remain the property of Benzini and are to be returned to the factory or customer is to notify Benzini for arrangement of pick up.
- Deliveries are to roadside only. Benzini does not take responsibility for damage to property if the driver is asked to enter the property.
- Chipped or damaged pavers up to 4% are considered to be within acceptable industry standards and will not be replaced. These should be put aside and used for cutting.

Cutting

- Benzini pavers and pool coping can be cut with a brick-saw or masonry blade grinder.
- For safety reasons, wet the product thoroughly before sawing and wear a dust mask and eye protection.

Compaction

- Pavers must be laid and levelled individually at the time of laying. Take care when levelling with a rubber mallet.
- **Do not** level product using a compactor plate.

Laying Methods

- The substrate of the area and project application will determine the type of laying method required.
- All substrate profiles should be in accordance with engineering &/or architect specifications.
- Matching coloured oxide/pigment is available if required to match grouting colour.
- To ensure sound adhesion between the paver and the mortar bed, we recommend the underside of the product should be brushed first with a mix of 2-litre latex based bonding agent (ie .Kemcrete, Weldcrete) + 4-kg neat cement + 2 litres clean water. This should be brushed on the underside of each piece as they are being laid.
- Keep 50mm from the edge of the product to allow for handling. Be sure to sponge off any spills on the face of the product immediately. With the Mediterranean Paver range it is best to wipe over entire paver surface when grouting as staining may occur. Please test first.

1) Fixed Laying Method- Mortar bed

- Stone pavers should be laid on a 75-100mm concrete slab as suitable for the application.
- Stone pavers should be mortared down onto a 10-15mm bed ensuring there are no voids, which can cause “drumminess” and structural cracks.
- Mortar between each paver and wipe off immediately using a wet sponge. Inadequate sponging during installation may leave a mortar residue.
- A mix of: 3 parts sand, 1 part cement, 1 part cement adhesive.

2) Flexible Laying Method- Road base

- Cover the area with compacted road base approx 100mm thick.
- Rake to a level thickness before compacting using a plate compactor.
- Cover the road base with coarse sand and level using a screed.
- Place mortar on the back of each paver before positioning. Tap down with a mallet to achieve level required.

- Mortar between each paver and wipe off immediately using a wet sponge. Inadequate sponging during installation may leave a mortar residue.

Drainage

- Drainage should be considered during all phases of the project.
- Good surface, sub-surface and subsoil drainage is essential for good long term performance of the paving.

Pool Surrounds & Step treads

- If there is any chance of substrate movement, it is recommended that a 2-pack ceramic tile adhesive (10-12mm base) be used for pool surrounds or slabs that may not have cured sufficiently. Do not use this type of adhesive under the waterline.
- Pool coping and paving should not be laid over the expansion joint between the pool shell/ bond beam and concrete slab. Ideally the width of the pool coping should equal the width of the poolshell/bond beam.
- It is highly recommended to use a professional pool coping installer / paving landscaper / tile layer to install pool coping.

Cleaning and Sealing

- Please refer to **Sealing Information** flyer on "Technical" Page.
- **Do not** use hydrochloric acid as this can eat away at the sandstone surface. There are many non acidic cleaners available at your local hardware.
- Benzini ornamental products can be factory pre-sealed if requested at the time of ordering.
- Product may require additional sealing after installation. This depends on the application and customer preference.
- We recommend the sealing of all pool surrounds to guard against salt variations.
- We recommend the sealing of product near BBQ areas, leafy or muddy areas to prevent staining.
- Sealing the product will protect it from most stains and slow the aging process.
- Sealing can not take place until the product and mortar joints are completely dry.
- For general cleaning of sandstone products use a high pressure hose or water and a scrubbing brush.
- For cleaning stone pavers, you can use household Domestos cleaner and a scrubbing brush. Wash off thoroughly with water.

Care and Maintenance

- Unsealed Benzini products will age naturally over a period of time- this is a unique characteristic of the product.
- The frequency of cleaning the product will depend on the individual preference and perception of what is tolerable.
- Most stains on Benzini products will weather away with time assisted by natural exposures to rain and ultra-violet light.
- Fine crazing (thermal shock) can occur but will self heal over time. Fine crazing is apparent in most cement based products and is not structural.
- As with all new cement based products efflorescence can become visible, this will generally weather away. Benzini does however add an efflorescence reducing additive to all sandstone products to assist with the quality of our product. Good drainage in most cases will also assist in limiting efflorescence.

PLEASE CONTACT BENZINI TO DISCUSS ANY OF YOUR CONCERNS.....