



SmartStone



INSTALLATION GUIDELINES

TILES

Disclaimer

While every effort is made by SmartStone to ensure the accuracy of information in the Installation Guide, Smartstone makes no representations or warranties, or in any way guarantees the accuracy or completeness of any information including, but not limited to: quantities, dimensions, or any specifications (including the installation of the products) provided in the Installation Guide. The customer accordingly indemnifies SmartStone and holds it harmless against all and any loss (direct, indirect or consequential), liability, actions, suits, proceedings, costs, demands ,and damages of all and every kind or nature, directly or indirectly arising from any failure, damage, or incorrect information portrayed in this Installation Guide.

THE GROUNDING PRINCIPLES

(Important concepts to understand in order to install your SmartStone product to last a lifetime)

There is good reason for SmartStone advocating the methods described in these installation guidelines. Feel free to “Google” and cross check them against what international experts prescribe. (There is a wealth of good “how to” videos on the internet.) They all say what we say in these installation guidelines.

In section 1.3 and 1.4 of these guidelines, we describe a few universal rules related to paving. Please read these. Every single method described in these guidelines is related to one or more of these rules.

- A residential driveway is a road. Whether you have one car driving on it or a thousand cars, your road should be able to carry the weight of a single car at a time. We have all seen roads being constructed. Contractors spend weeks preparing the base or foundation. They use rollers, graders and other heavy equipment to prepare various layers before quickly coating it with a thin layer of asphalt.
- As described above, paving derives its strength from the layers beneath the paving blocks. These layers need to be constructed with the right aggregate. A well-compacted foundation is critical for your paving to last a lifetime.
- Do not install plastic sheeting beneath paving. Plastic sheets negatively affect the structural integrity and drainage of paving. Furthermore, they do not prevent weed growth, as weeds grow from the top as a result of bird droppings, the wind etc. – not through the paving.
- Consult an engineer experienced in the design of segmented block paving for paving intended to carry commercial traffic, or residential applications where the soil is clay, sand or contains excessive moisture.
- If you are replacing a paved area that has previously failed, establish why your paving failed initially, and ensure that the causes are addressed when repaving.
- Paving on top of existing structures and slabs require special design considerations. Consult an engineer experienced in the design of segmented block paving on slabs.
- Consult SmartStone’s product brochure or website for suggested laying patterns that are aesthetically and structurally suited to the paving application. It is important to avoid continuous joints in the direction of vehicular traffic.
- Water ingress is detrimental to any paved area. The paved area must be higher than the surrounding ground level, and sloped so that water drains from it. Paving must always slope away from buildings. Water from downpipes should flow into a gully, or into an underground drain, and not over the paving, to prevent the grouting from being washed out.
- Pavers must be sealed around a salt chlorinated pool; and on a paved patio where there is a braai.
- Almost all cement grouting of pavers and flagstones exposed to the elements (i.e., sun, rain, heat, cold) fails over time – either from expansion and contraction due to temperature variations, or movement of the pavers. We recommend using a proprietary grout, such as Romex, available from Cretesol.
- Paved areas need to be maintained, and should grouting or edge restraints start to fail, this should be repaired promptly.
- Pavers are brittle. They could chip and break, if not handled with care. Never throw pavers in wheelbarrows or front-end loaders and tip them at the destination. Pack and unpack pavers individually, by hand, when using a wheelbarrow to move them.
- It is important to note that there will be slight variances in colour between different batches of pavers. It is always advisable to draw and install pavers from different packs during installation, to avoid a patchy finish.

INSTALLATION OF TILES

1.1. GENERAL GUIDELINES

1.1.1 Take Note:

- SmartStone Concrete Tiles are handmade so there will be variations in colour, size and thickness.
- When installing the tiles, select tiles randomly from at least 3 pallets to minimise shade variations.
- Tiles must be inspected for colour variations and any defects prior to installation. No claims will be entertained after the tiles have been cut or installed.
- When ordering, allow an extra 10% for cutting and breakages.

1.1.2 Protecting Tiles During Construction:

- Whilst in the process of construction, cover the newly-installed tiles with plastic sheeting or non-marking boarding, to protect the tiles from staining or damage.
- DO NOT use acid-based chemicals or cleaners on the tiles, as they will damage the tiles and corrode the sealant.

1.2. PREPARATION

- The surface to be tiled must be level, clean, dry and free of any loose or flaky material.
- The underside of the tiles must also be clean, dry and free of any loose or flaky material.
- If the underside of the tile is smooth or shiny, wire brush it lightly to roughen the surface to ensure a good bond with the tile adhesive.
- The tiles may only be laid on a concrete or masonry substrate, which must be moist when laying the tiles.
- Soak the tiles in water for 15-20 seconds just prior to installation.
- It is recommended that the face of the tiles are sealed 24 hours prior to installation (see 6.8. below) to minimise any risk of staining while laying the tiles.

1.3. SETTING OUT FOR SMARTSTONE CONCRETE TILES

- Tile from the centre of the area to be tiled, outwards.
- Allow a gap of 3 – 12mm between tiles.
- The use of a builder's line, together with tile spacers, to align the tiles, is recommended.

1.4. TILE ADHESIVE

- We recommend using a high-quality cement-based ceramic tile adhesive.
- The adhesive must be a conventional slow-setting tile adhesive.
- Do not use rapid-setting or porcelain tile adhesives.
- For best results, add plaster-key when preparing the tile adhesive.
- If there is any adhesive on the surface of the tile, this must be cleaned off immediately.
- If not cleaned off immediately, this will permanently stain the tile.

1.5. LAYING TILES

- Apply the tile adhesive (see 6.4. above) with a notched trowel.
- For the best adhesion, apply adhesive to the back of the tile and the substrate.
- Tiles must be bedded by hand or using a non-marking polyurethane mallet, ensuring that the tile is level and of equal surface height to the surrounding tiles.
- Tile in small areas at a time, to prevent the tile adhesive drying out.
- When tiling large areas, allow for expansion joints. Expansion joints in the tiles must coincide with the expansion joints in the substrate. Use a matching-coloured silicone to create the flexible joint.

1.6. GROUTING

- Make sure the joints are clean and free of any loose material.
- Select a grey grout, or colour that complements the colour of the tiles.
- Avoid the use of black or dark-coloured grout, as this may stain the tiles.
- Clean excess grout from the tiles immediately, using a sponge and clean water.

1.7. SEALING

- Please note that tiles may darken randomly or on the edges, due to moisture absorbed from the tile adhesive or grout. This will become lighter as the tile dries out.
- Allow for the tiles to be completely dry (a minimum 5 days after grouting) before finally sealing the tiles.
- Prior to sealing, clean the tiles with a neutral soap or cleaning agent and allow to dry before sealing.
- DO NOT use an acid or bleach to clean tiles. This will cause permanent damage to the tile.
- It is recommended that tiles are sealed with SmartStone-approved sealants (available from SmartStone), or another high-quality penetrating sealant. This protective coating will minimise the risk of staining, and ease cleaning.
- SmartStone-approved sealants should be applied annually, or more often in high-traffic areas.

1.8. SMARTSTONE TILE MAINTENANCE

- SmartStone concrete tiles should only be cleaned with a neutral soap when necessary.
- The tiles will need to be re-sealed from time to time, depending on the traffic the tiles are subjected to.



SmartStone

CONTACT DETAILS

BLOEMFONTEIN

14B Blouberg Avenue
Spitskop, Bloemfontein
Tel: 051 451 1174
bloemfontein@smartstone.co.za

MIDRAND

Cnr. Cresset & Musket Roads
Midrand Industrial Park, Midrand
Tel: 010 442 0377
midrand@smartstone.co.za

PRETORIA

Plot 366, Lynnwood Road
Extension, Zwavelpoort
Tel: 012 809 0471
pretoria@smartstone.co.za

CAPE TOWN

1 Coaten Street
Wellington, Cape Town
Tel: 021 873 5482
capetown@smartstone.co.za

NELSPRUIT

Cnr. Curlews Road & R40
Rocky Drift, White River
Tel: 013 758 1340
nelspruit@smartstone.co.za

MOZAMBIQUE

Av. Samora Machel, Parcelo 902
Cidade da Matola
Tel: +258 21 78 3669
info@smartstone.co.mz

DURBAN

Unit 3, Terra Nera Industrial Park
Road 20261, Ottawa
Tel: 031 569 6625
durban@smartstone.co.za

PORT ELIZABETH

Victoria Drive, Walmer
Port Elizabeth
Tel: 041 366 2216
smartstone.pe@yebo.co.za

NAMIBIA

21 Gold St, Prosperita
Windhoek, Namibia
Tel: 00 264 61 231233
namibia@smartstone.co.za

GEORGE

28 Pioneer Street
Pacaltsdorp Industria, George
Tel: 086 111 2346
george@smartstone.co.za

POTCHEFSTROOM

Plot 819, Vyfhoek
Potchefstroom
Cell: 082 850 7773
potch@smartstone.co.za

ZAMBIA

Plot No.288a, Makeni
Lusaka, Zambia
Tel: +260 211 212155
zambia@smartstone.co.za

LICENSEE ENQUIRIES

SmartStone (Pty) Ltd
Tel: 011 310 1161
Email: info@smartstone.co.za

www.smartstone.co.za