



Recommended Jointing Sand...  
\$18.00 per bag, incl GST.



Recommended for use by experienced paving contractors.

# Pave-Lok<sup>®</sup> GEL SET

Pave-Lok<sup>®</sup> is a lightly bonded jointing sand specially formulated to allow rapid filling of vertical joints between segmental pavers. We recommend use on flexible pavements.

## Benefits of Pave-Lok<sup>®</sup> Gel Set

- Helps retain integrity and stability of joint.
- Resists wash out after 30 minutes setting
  - Retards weed growth.
  - Is quick and easy to apply.
- Minimises wind-blown joint erosion.

# 6 Easy steps for laying Pavers with **Pave-Lok<sup>®</sup> GEL SET**

## What you should know before using PaveLok<sup>®</sup>

### Setting

- **Initial Set:** Pave-Lok<sup>®</sup> will Gel Set just 30 minutes after being wet. This gel set is strong enough to resist wash out by rain.
- **Final Set:** For Pave-Lok<sup>®</sup> to become fully bonded it must dry out. The rate that Pave-Lok<sup>®</sup> dries is dependant on 2 factors.
  1. The drainage of the base. For best results the base should be permeable (eg sand), and have a drain so that excess water can escape. If the base is concrete and banded, rain water will be trapped and drying of the Pave-Lok<sup>®</sup> will be very slow.
  2. The weather conditions. In hot dry conditions the Pave-Lok<sup>®</sup> will set within a few days.

### Strength of Bonding

- PaveLok<sup>®</sup> is a lightly bonded sand. A thin section of fully bonded sand can be snapped in ones fingers. PaveLok<sup>®</sup> should not be used for structural construction.
- Pave-Lok<sup>®</sup> is designed for flexible pavements. This means that the bond between the paver and the Pave-Lok<sup>®</sup> is not strong, ensuring that if the base moves there will be many small “cracks” between the Paver and the Pave-Lok<sup>®</sup> instead of a few large cracks across the Pavers and a mortar.

### Efflorescence

Upon the addition of water a white stain (efflorescence) can appear on the pavers. This efflorescence is the precipitate of fine white crystals (salts) and can come out of the paver or rise up with the base water. In the short term this stain can be removed with soapy water, but with rain new salt will likely be deposited. To negate this it is recommended that the pavers are sealed prior to soaking with water and that washed sand is used for the base.

### Preparation

It is fervently advised that a section of 3 or 4 pavers is tested with Pave-Lok<sup>®</sup> BEFORE tackling the whole job.

## 1 What you will need

#### Check off as you go

- Two screed rails (2 pieces of timber 40x40mm thick x3 metres long)
- One screeding board (flat straight piece of timber or aluminium 2.5 metres long)
- Well-graded coarse/medium sand (for bedding) 1m<sup>3</sup> will cover approx. 25m<sup>2</sup>
- Pave-Lok<sup>®</sup> quantity suitable for the size of paver in accordance with Table 2

- Roadbase for driveways or for areas with poor soil
- Compacting equipment\* (either vibrating plate compactor, or rubber mallet and piece of timber if job is small and does not require a plate compactor)
- Club Hammer
- Rotating Diamond Tip Blade Saw\*
- String line and pegs
- String line level or spirit level

- 1 Screed board 100mmx32mmx2.5 metres.
- Road base for driveways.2 tonnes will cover approx.7-10m<sup>2</sup> when compacted (100mm thick)
- Edge restraints
- Tape measure
- Wheel barrow
- Spade
- Broom
- Rake

\* **Note:** Paver-cutting and compacting equipment available from equipment hire centre.



## 2 Site Preparation

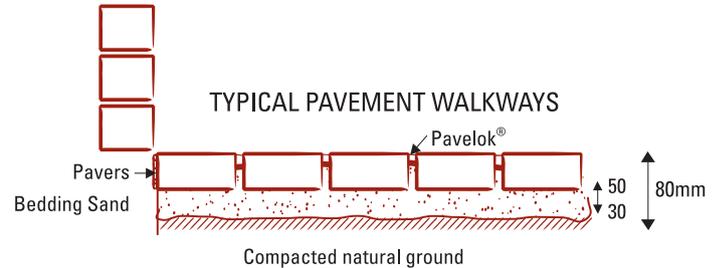
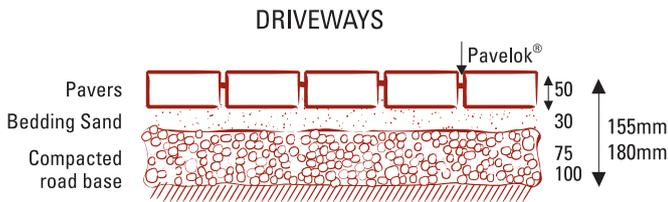
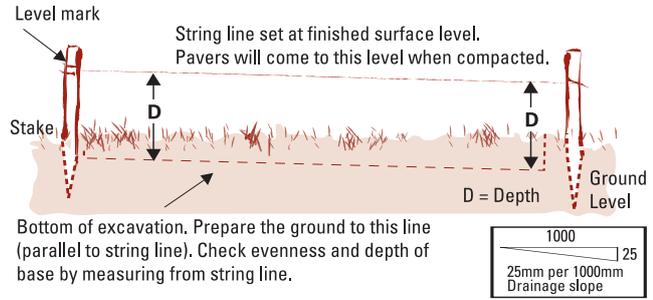
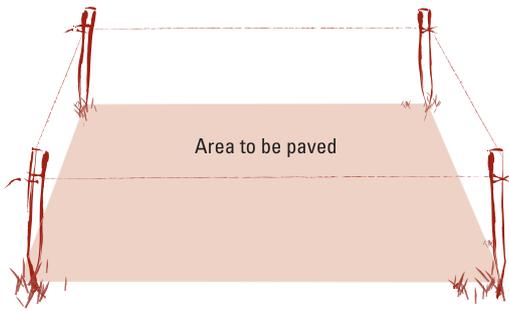
Time spent in preparing the site will be well rewarded in the long run. Your paving will only be as good as its foundation. The base must be firm. Hollow and low areas must be filled – compacted by tamping or rolling. Excavate the area to be paved to a minimum depth of the paver plus 30mm for bedding sand. Be sure to allow a fall for drainage or a road base if soil is soft.

Set all string lines first to establish a level starting point, then adjust for drainage falls as shown below. Slope paving away from building and allow for final paving surface to be below any damp-proof course.

Thorough gradual soaking of the Pave-Lok<sup>®</sup> area should be completed to allow water to penetrate through the jointing material. Pave-Lok<sup>®</sup> then needs to be allowed to dry.

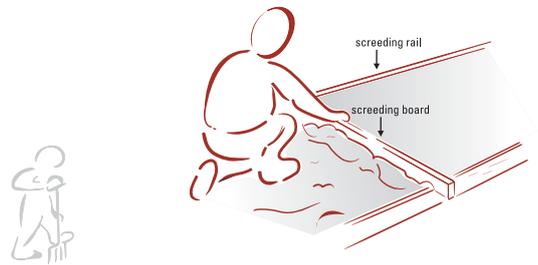
Pave-Lok<sup>®</sup>, once dried, will remain flexible and allow slight movement of pavers without cracking. Your paved area will be ready for use after a minimum of 24hrs setting time.





### 3 Bedding

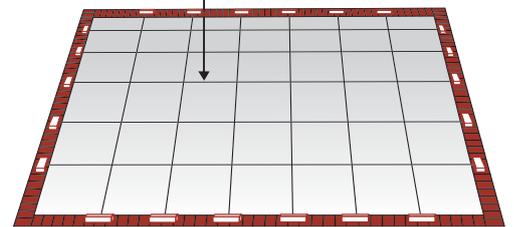
Place bedding sand and spread evenly over area to be paved to a depth of 40mm, allowing 5-10mm for settlement on compaction. Spread with a rake. Set string lines to desired levels and set screed rails accordingly. Using a screed board, spread the bedding sand to required levels.



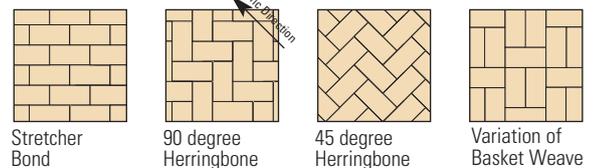
### 4 Laying Pavers

Select paver laying pattern. Herringbone is strongly recommended for driveways. Determine the average width of the pavers by placing 20 pavers tightly side by side and measure their overall width. Divide this figure by 20. Add 3mm to this average paver width (to allow for joints). Space out a grid of stringlines based on this final dimension (ave. width +3mm) for, say, 10 paver intervals. Lay pavers in desired pattern. **Always allow a 2-3mm gap between pavers.** Re-position the string lines to form the same grid as you progress. Do not allow pavers to touch, as this may lead to chipping in use.

Position strings to opposing key pavers over whole area. Use this grid as a guide to lay pavers.

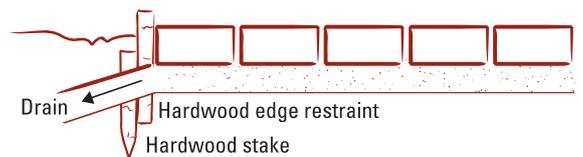
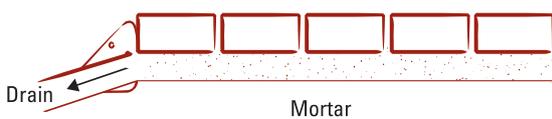


**\* Note:** To ensure more uniform blend of colours use pavers from more than one pack as you lay.

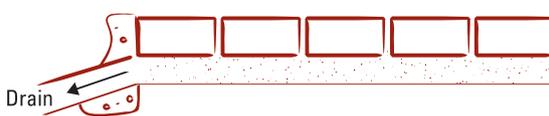


### 5 Edge Restraints

Edge restraints are required to prevent movement of the edges and restrain the pavers and sand. A concrete edge, a paver set on edge or a timber boundary is ideal and can be constructed at a time to suit – at the beginning, during, or at the last stage of placing the pavers. Remember the 3mm gap – pavers must not touch. Edge restraints should be approximately 10mm below uncompacted pavers to allow for compaction.



Concrete is essential for driveways



# 6 Compacting & Jointing

When the pavers are in place and edge restraints secure, clean the pavers and allow to dry, then sweep **Pave-Lok®** (dry) over the dry completed area until the joints are completely filled.

For small jobs, pavers may be compacted by using a rubber mallet and a piece of timber. For larger jobs, use two or three passes of a vibrating plate compactor to ensure compaction of tight joints. A rubber roller attachment or carpet can be used under the plate to protect the pavers from damage. Paving should compact about 10mm. The joints should then be topped up by sweeping **Pave-Lok®** over the area prior to a final compaction consisting of two more passings of the plate vibrator.

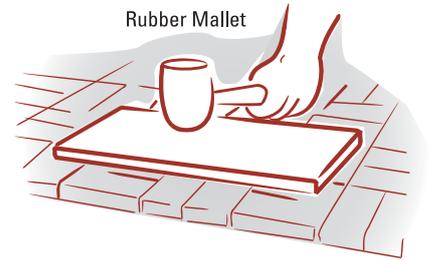
Before applying an even spray of clean water over the pavement, you must ensure that all excess **Pave-Lok®** is swept clean from the surface of the pavers to avoid **Pave-Lok®** adhering to the surface.

Thorough gradual soaking of the **Pave-Lok®** area should be completed to allow water to penetrate through the jointing material. **Pave-Lok®** then needs to be allowed to dry.

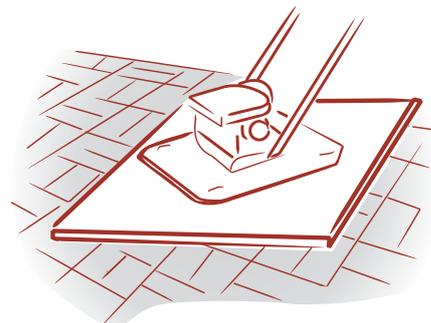
**Pave-Lok®**, once dried, will remain flexible and allow slight movement of pavers without cracking. Your paved area will be ready for use after a minimum of 24hrs setting time.

**Note:**

- Do not use **Pave-Lok®** on rustic non-smooth pavers as staining/scuffing may occur.
- Do not mix cement or sand with **Pave-Lok®**.
- If complications occur from excess residue, **Pave-Lok®** can be scrubbed from the paver surface by using a stiff brush or broom swept diagonally across the laying pattern.
- Minimal maintenance may be required in certain areas.
- In the interest of safety, eye protection should be worn when cutting pavers. Eye, ear and respiratory protection should be worn if using a power paver cutter.



Paving should compact 10mm



Plywood carpet or rubber mat



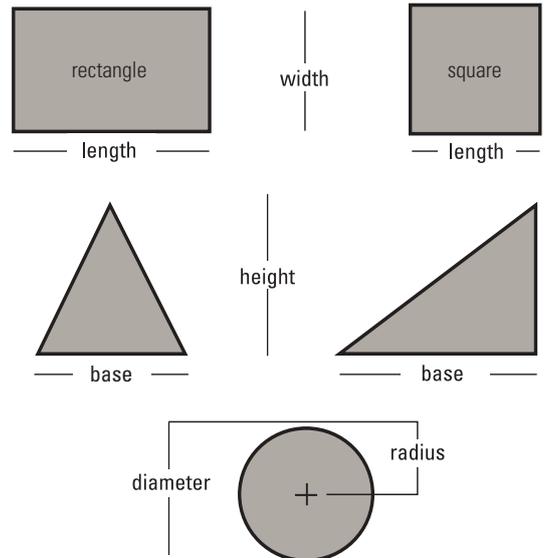
## Calculating areas for paving

Most areas are one or other (or a combination) of three basic shapes: Rectangles (including squares), triangles and circles.

The area of a rectangle (or a square) = length x width; eg. an area 10 metres long and 5 metres wide = 10x5m = 50m<sup>2</sup> (square metres).

The area of a triangle = half the width of the base x height; eg. a triangle with a base 10 metres wide and a height of 8 metres = 5x8m = 40m<sup>2</sup>.

The area of a circle = r<sup>2</sup> or multiply the radius by itself and multiply the result by 3.14. (the radius is half the diameter); eg. a circle with a diameter of 5 metres (and therefore, a radius of 2.5 metres) = 2.5x2.5x3.14 = 19.6m<sup>2</sup>.



## Should I order extra pavers?

Always order extra pavers to allow for the occasional breakage and for those which need to be cut. Allow more cuts if the area to be paved is irregularly shaped. After the pavers have been laid store a few spares to allow for future replacements. An industry 'rule of thumb' is an additional 5% of the area should be ordered.

## PLEASE READ - Important notes for achieving a superior finish with Pave-Lok®

Pave-Lok® is suitable for use with flexible pavements only.

Pave-Lok® is not suitable for use with rigid (concrete) bases as this precludes compaction of the pavers into the bedding sand, leaving Pave-Lok® uncompacted and stops drainage. This can result in Pave-Lok® not setting and being ejected from the joint. Flexible pavements will also assist drainage of the joints. Inadequate drainage can impact adversely on the performance of Pave-Lok®.

**Pave-Lok® must be allowed to fully dry out.** Once fully dry, bonds will not dissolve in water. High humidity can slow or halt the drying process.

Pave-Lok® becomes only lightly bound, and as such **is not a replacement for mortar.** Mortar has very strong bonds compared to Pave-Lok®.

Unlike mortar, Pave-Lok® is permeable and so water will pass through the joint. Once in the base sand the water must have access to a drain through which it can leave the base sand. If the joints are not drained, the effectiveness of Pave-Lok® will be reduced.

The drying out of Pave-Lok® occurs fastest on the exposed surface and more slowly at the bottom of the joint. If the drying process is very slow, this can sometimes produce a skin. With time, the entire joint will dry and bond. This could take a number of weeks depending on ambient conditions.

Once dry, Pave-Lok® becomes hard and rigid (not as brittle as mortar).

### DO...

- ensure a 2-3mm gap between pavers.
- ensure Pave-Lok® is finished at least 7mm below the top of the paver. If Pave-Lok® is finished above 7mm from the surface it will abrade away.
- use quality bedding sand ie, coarse washed river sand.
- avoid excessive wetting or flooding of paved area.
- start wetting the placed Pave-Lok® at the highest point of the paved area and move towards the lowest point. This allows the water to drain from the joint. If drainage is a concern, do the placement and wetting in a few stages, starting at the highest point and allowing the first stage to dry before starting on the second stage.
- check with the paving supplier as to the suitability of compacting pavers 50mm or less in thickness.

### DO NOT...

- flood the area. Pave-Lok® must dry out to bond.
- use Pave-Lok® in areas subject to continued dampness.
- use crusher dust as a bedding sand layer as this could lead to inadequate drainage and Pave-Lok® not drying.
- allow vehicular traffic over surface for 24 hours before final set (drying).
- apply Pave-Lok® onto wet or damp surfaces. Pave-Lok® will begin to 'gel' onto the wet surface.
- use power hosing to clean pavers. This could wash Pave-Lok® out of joints. Sweeping with a broom is a better alternative.
- run sprinkler system or hoses on pavers before the Pave-Lok® is fully dry.
- use Pave-Lok® with pavers that have bevelled edges along the top, as adequate compaction and gelling is difficult to achieve.
- dilute Pave-Lok® with Sand.

*It is recommended a small trial (1m<sup>2</sup>) be conducted to ascertain paver suitability (moisture and surface texture) prior to full application.*



**Pave-Lok<sup>®</sup> has been specifically formulated using graded, washed sand and additives to allow rapid filling of all vertical joints in segmental paving.**

Pave-Lok<sup>®</sup> is suitable for use in the following areas:

- Driveways
- Footpaths
- Sloping sites
- Roadways/Airport standing areas (where designed)
- Where there is heavy traffic movement
- Where mobile vacuum sweepers are used
- In high wind areas

**Table 1**

Technical Data for Pave-Lok <sup>®</sup>	
Recommended Gap Width	2-3mm
Set Characteristics	Dry: solid Wet: flexible
Curing Time	Dependent upon climate & moisture level in pavers
Storage	Indefinite in dry place

**Table 2**

Paver Size (mm)	Coverage per 30kg bag (m <sup>2</sup> )
230x115x40	9-10
230x115x50	7-8
230x115x65	6-7
230x115x75	5-6
200x100x40	7-8
200x100x60	5-6
200x100x80	4-5
Interlock 60mm	5-6
Interlock 80mm	4-5

**Note:** This table provides an indication of the expected coverage per square metre of Pave-Lok<sup>®</sup> with a nominal 2-3mm joint width between paver units.

**For more information, please contact:**

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Tel: (08) 8340 4166 Fax: (08) 8340 4121

Con-Pac, 96-108 Belaire Road, Hawthorn SA 5062,  
Tel: (08) 8272 8346 Fax: (08) 8373 4001

**TAS**

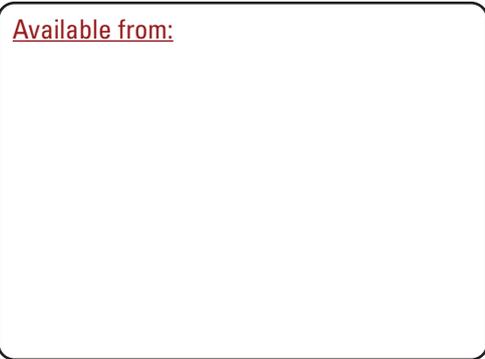
Bells Industrials, Port Sorrel Main Road and Frankford Highway,  
Devonport TAS 7310,

Tel: (03) 6427 0133 Fax: (03) 6427 0110

**WA**

GJ Pitter & Sons, 16 Williams Road, Kelmscott, WA 6111,

Tel: (08) 9399 5260



[www.bluecirclesouthern cement.com.au](http://www.bluecirclesouthern cement.com.au)

**Disclaimer**

*Pave-Lok<sup>®</sup> should be used in accordance with directions. Blue Circle Southern Cement accepts no responsibility for inappropriate application or faulty workmanship. The contents of this publication are intended for general guidance and do not replace the services of professional advisers on specific projects. Specifications in this publication are subject to change without notice. Blue Circle Southern Cement, their servants or agents cannot accept any liability whatsoever in respect to the contents of this publication.*