



Porous Paving



commercial porous paving installation

Water sensitive paving

All StoneSet products are fully permeable which allows water to penetrate the surface and flow through to the ground below. With issues surrounding flooding, pollution and preservation orders on trees, a permeable surface is becoming increasingly important, in fact essential.

Because of the strength of our high grade resin, our design process uses optimal amounts of resin creating a strong bond. The results in the particles being held firmly together at the points of contact only, leaving voids for water and air to permeate through.



The water cycle

Water evaporates, forms clouds and falls back to earth as precipitation, which either soaks into the ground or becomes surface runoff, which re-fills rivers and lakes. Water soaking back into the ground is very important to recharge ground water creeks and streams, the process naturally filters providing cleaner healthier waterways.

As cities and neighborhoods continue to grow, hard surfaces are created. Roof tops, carparks, driveways and paths do not allow the rain water to soak into the ground. The stormwater that flows across these surfaces becomes runoff that disrupts the water cycle and can cause serious problems such as toxic contamination and flooding.

Water that cannot soak into the ground moves too quickly to rivers and streams and hits them with a rush which creates erosion and storm water surges. In addition, when the stormwater runoff flows across roads, driveways and carparks it picks up pollutants like oil, fertiliser and litter. These are carried directly into our rivers and, ultimately, into the ocean.



Specification

To create a fully porous hard surface, care and consideration needs to be put into the construction of the existing sub grade. If there is a danger that standing water will soften the sub-grade in an unlined system a sub surface drain to an outlet should be installed. If plastic or silty sub grade is present it may be necessary to stabilise the sub-grade or partially replace it with sub-base/granular capping. An impermeable liner may be required. Total base course thickness will be dictated by expected loading, required water storage and sub grade strength.

These generalised specifications are based on normal good practice for flexible surfacing and does not absolve the specifier from designing a construction suitable for the expected traffic and ground conditions pertaining on a given site. Please discuss suitable site specific details before specifying.

It is recommended that aluminum dividing or similar be designed into the surface course as construction joints. Initial resin gloss will wear to natural matt stone finish.

6mm Viking Skull StoneSet



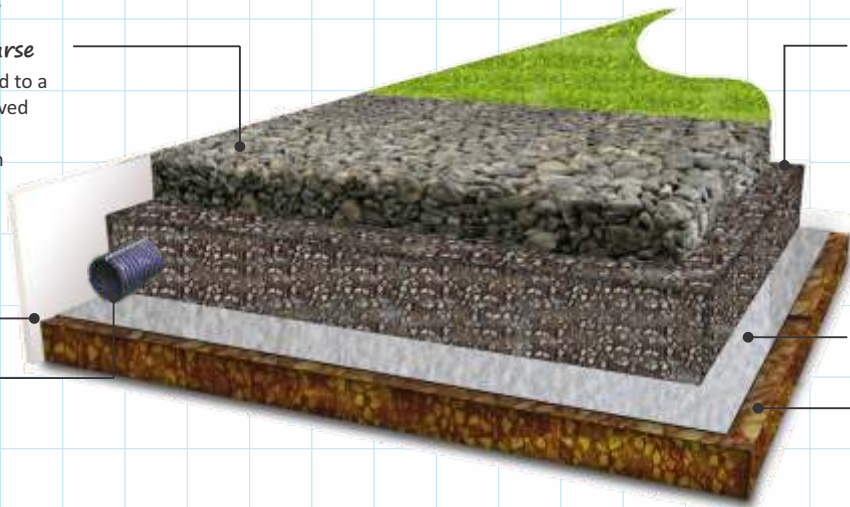
Installation

Pedestrian

StoneSet Surface Course
 hand applied and trowelled to a smooth finish by an approved contractor:
 - an aggregate size of 6mm requires min 25mm depth
 - an aggregate size of 10mm requires min 25mm depth

Edge Restraint

Sub surface drain
 perforated pipe system to stormwater connection



Drainage Base Course

- 100 - 150mm no fines pervious concrete
 - 100 - 150mm compacted permeable aggregate or similar.
 Thickness depending on sub-grade classification

Geotextile membrane

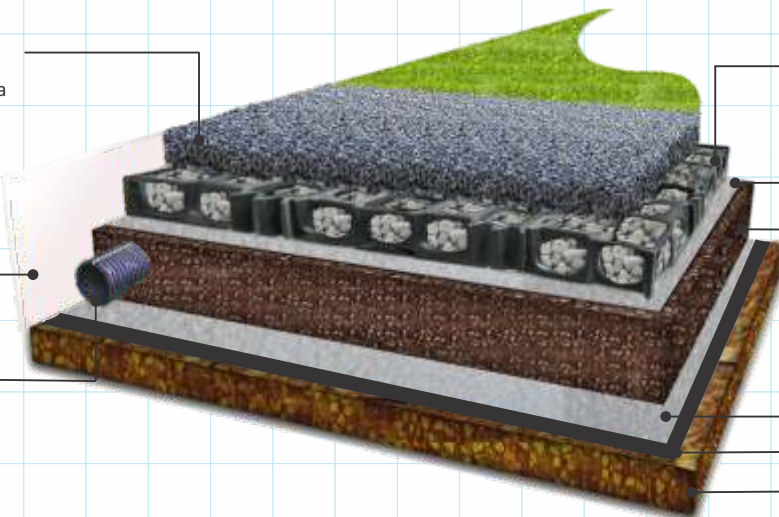
Existing sub-grade

Vehicular

StoneSet Surface Course
 hand applied and trowelled to a smooth finish by an approved contractor:
 - an aggregate size of 6mm requires min 25mm depth

Edge Restraint

Sub surface drain
 perforated pipe system to stormwater connection



Structural Filtration Layer

- 30mm or 50mm structural cell filled with 3-6mm free draining chip or similar.

Geotextile membrane

Drainage Base Course

- or 100 - 150mm no fines / pervious concrete
 - 100 - 150mm compacted permeable base course or similar.
 Thickness depending on sub-grade classification

Geotextile membrane

Impermeable Liner - if required

Existing sub-grade

Specifics

slip resistance

0.69 average value, Class V, as per AS/NZS3661.1 Appendix A

permeability

1500 - 2000mm/min average at 25mm depth as per AS/NZS 4456.16:1997

base course

Drainage base course consists of permeable, clean, coarse-graded, durable aggregates that provide a and solid foundation for the overlying layers. No Fines Pervious concrete is also an acceptable durable substitute for drainage base courses.

consistent

maintenance

annual low pressure wash and or outdoor vacumming



*No needs for gaps in paving,
 StoneSet is 100% porous*

Questions?

StoneSet is a problem solving paving system, we have decades of experience in the industry and can help you with all your porous paving needs. We love working with our clients to select colours, helping with specifications and costings so please call to discuss your specific requirements any time.

How long will it last?

StoneSet comes with a 5 year guarantee for porous systems, however the resin technology is designed to last in excess of 25 years.

Is it UV stable?

StoneSet resin is UV stable making it the most suitable for long life and sustained colour.

Our StoneSet resin is strong enough to hold the stone particles in place while maintaining optimum void content to allow for permeability. The resin does not soften in the hot weather nor does it crack under or lift in freezing temperatures.

Resin and stone?

We always ensure the optimum resin content for the aggregate blend and expected traffic, specific to each project. Binder content is key, too much resin makes the permeability suffer and handling is difficult. Too little resin results in diminished strength, flexibility and durability. Particles of aggregate can work loose if insufficient resin is applied. We have this covered by sending pre-weighed and batched materials to site so the ratio is always perfect.

Is it anti-slip?

Yes. StoneSet is designed to meet all slip resistance standards: AS/NZS 3661.1:1993 Slip Resistance of Pedestrian Surfaces. For a steep slope we would recommend using a crushed aggregate, which has a great long lasting slip resistance. We cast recycled glass sand or quartz sand over the curing surface to provide an instant non-slip finish and to take the immediate shine off the surface.

Will it stay this shiny?

No. The top layer of the resin will weather, leaving you with a natural tone of either the aggregate or the recycled glass. That is unless you want a gloss coat, which we can apply at a latter date to give the "gloss look".

Is it easy to clean?

Yes. StoneSet is very low maintenance and easy to look after. Regular maintenance will help to keep permeability rates high and your StoneSet looking like new. It can be cleaned simply by pressure washer, walk behind outdoor vacuum and or ride on washer/scrubbers.



*Improve your hard to soft
landscaping ratio with porous paving*