



Self Binding Buff Gravel 0-10mm Installation Guidelines

Natural self-binding gravels (SBG) when laid and compacted correctly, will provide you with an attractive and rustic looking pathway.

General Notes

- Spread to a depth of 75-85mm for a compacted depth of 50mm
- One tonne of material will cover approximately 8-10m² when laid to a finished compacted layer of 50mm
- Contractors: for estimating purposes, assume 1m³ compacted = 2 tonnes
- It is not practical to lay this gravel on steep slopes where the angle of the fall is steeper than a 1 in 15 gradient. Long continuous falls over sloping ground can be minimised by the formation of deep steps; this will reduce the risk of ruts occurring caused by the action of flowing rainwater
- SBG is not a free draining material and requires a cross fall or camber to shed water from its surface into adequate drainage
- An adequate fall would be 1:55 for a pathway and a minimum of 1:40 for much wider walkways & courtyards
- We do not recommend self-binding gravel pathways to be used by horses or motorised vehicles, which will cause undesirable damage to the surface of your path and can lead to potholes

Site preparation

- Remove all plants and weeds
- Treat the area with a suitable weed killer

Foundations

- Foundations should be of sufficient strength and stability to carry the proposed footfall. Assuming the ground is good, a minimum 150mm of a Primary Type 3 will be required

Ensure water can infiltrate the ground below your sub-base and is not held directly below the SBG

- If a permeable weed suppressant membrane is required, install it underneath the sub-base and not between the sub-base and SBG
- The area must have sufficient drainage to ensure any rainwater can drain away
- Sloping ground: where a path is to be constructed, which has sloping ground that can shed water onto the pathway, a French drain must be constructed on the slope side or sides alongside the pathway to take the excess water, ensuring the pathway cannot be flooded
- The sub-base should be laid and rolled using a roller of suitable weight i.e. minimum 1.5 tonnes. Using a 1.5 tonne roller, will achieve maximum compaction with a minimum number of passes. For smaller areas, a pedestrian roller may be used, although it is vital that the surface is rolled sufficiently to achieve fullest compaction
- SBG pathways must not be laid flat to ensure rainwater can drain from the pathway and not cause damage such as grooves/ruts. It is, therefore, important that the sub-base is laid with the necessary cross falls or cambers prior to the laying the SBG

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New Pathway Construction

Before using, check the moisture content of the SBG, especially in dry conditions or where the material has been stockpiled before use or supplied in bags. When squeezed by hand, the material should have enough moisture so that it sticks together but should not be wet. If the material is dry, use a hose with a very fine mist, direct the water upwards and allow it to gently settle over the SBG. Carefully turn the material and repeat as required.

Spreading the Self-Binding Gravel

- Use the back of a rake or a flat board to spread the SBG. Please do not use the prongs of a rake as they may pull coarse particles of the gravel up to the surface, where fines are critical for binding
- Spread your SBG to a depth of 75-85mm to achieve a finished compacted thickness of 50mm

Dry Rolling

- Use a suitable vibrating roller, similar to that used for compacting the foundation (minimum 1.5 tonne roller)
- Initial two passes of the roller should be carried out with the roller vibrator turned off
- Continue with roller vibrator turned on until full compaction and a uniform appearance has been achieved
- If any areas of coarse material are evident on the surface, you will need to sieve fines from the main heap of material and scatter onto these coarse areas before re-rolling

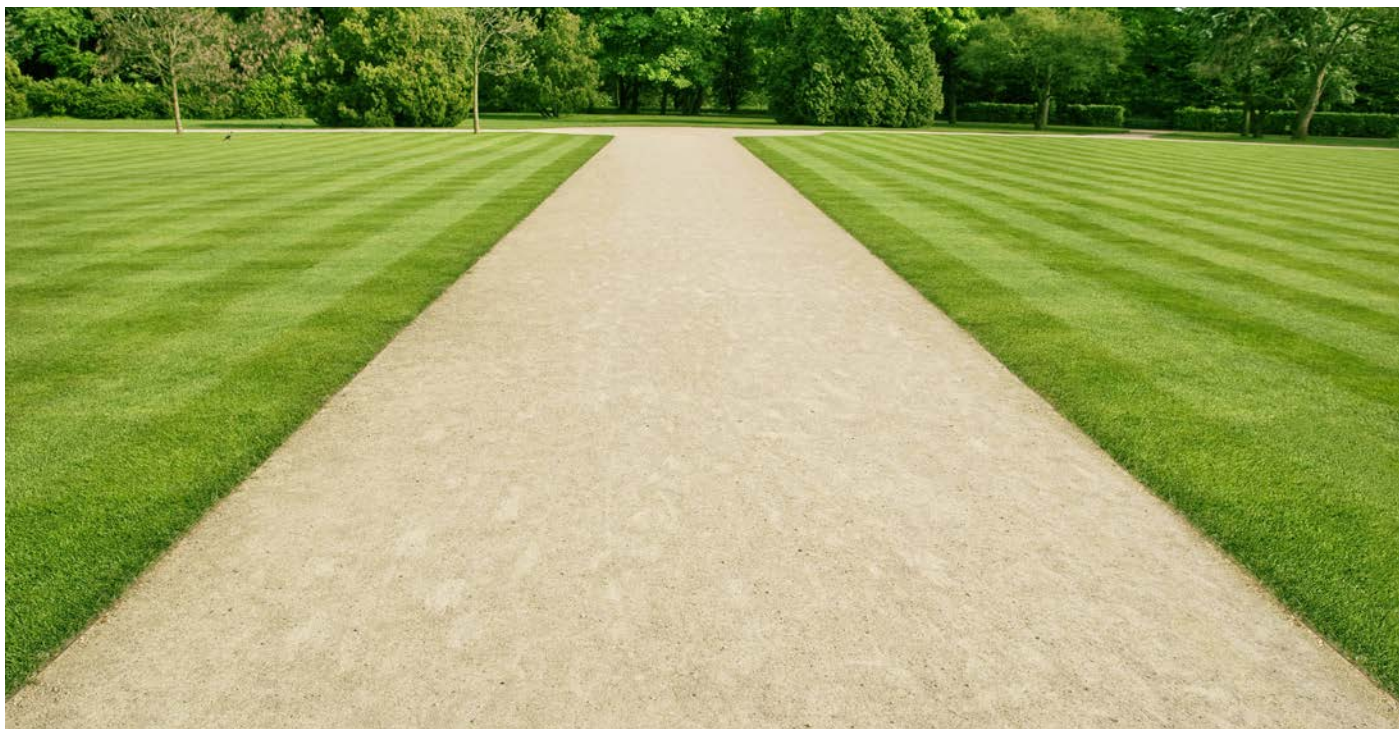
Wet Rolling with Vibratory Action Switched OFF

- Once a uniform appearance has been achieved, continue with wet rolling with the vibratory action switched off. Water should be applied to the drum but not directly onto the SBG as this will wash out the fines, which are critical for binding
- If the gravel sticks to the roller's drum, it is because the drum is too dry. During warm and dry conditions, extra water may need to be applied to the drum (not directly onto the SBG)
- If there are any lines in the gravel left by the weight of the roller, a soft wide broom can be used to gently pass over the surface while the surface is still wet; this will remove any lines and leave a uniform finish
- Ideally you want to complete your pathway in one section. If you cannot complete your pathway in one day, leave part of the current section un-compacted and then continue laying and spreading the SBG as instructed above

Please note

- Laying Guidelines should be passed onto your contractor
- Moisture content must be maintained at all times
- Be advised, horse and motorised traffic will break-up the surface of your pathway, which will cause undesirable damage to the surface of your path and can lead to potholes
- The laying of SBG should not be carried out during frosty or snowy weather conditions
- SBG can be laid during light rain but not when the rain is intense enough to wash the fines away from the surface

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Give the surface time to dry

- It is important that your newly laid pathway should be allowed to dry out before being used. A minimum of 48 hours but ideally 10 days. Depending on weather conditions, drying-out may take longer

Edgings

- Concrete, timber, metal or stone edgings can be used and will help achieve fullest compaction
- Edgings should not stand proud of the SBG
- Timber or metal edgings should have holes drilled through the edgings at half metre intervals to allow water to flow off the surface. If curbs or sets are used as edgings, the mortar joint can be left out at half metre intervals to allow water to escape from the surface

Repairs

Repairing an area of self-binding gravel is not ideal and we recommend close adherence to the above installation guidelines and not allowing horses or motorised vehicles to use your pathway.

Should a repair be necessary:

- Small holes should be over-filled by approximately 50% with loose SBG and then rolled following the installation instructions (for a hole with a depth of 20mm, the loose SBG should stand approximately 10mm proud of the surrounding surface)
- Potholes can occur when water cannot drain from the SBG pathway. This may be because of surface damage, an inadequate camber or cross fall, or because the sub base is not free-draining. If a pothole appears, cut out the area around the pothole and remove all the material in this area down to the sub base. Complete a visual check of the sub base. If the sub-base is in a satisfactory condition, refill the hole to a depth of 75mm and follow the installation guidelines

Maintenance

- Leaves and debris should be removed from the surface using a blower, vacuum, or **soft** brush. A hard brush should not be used as it could loosen and damage the surface of your pathway
- If weeds, seed and grow into the surface of your pathway, apply a water based weed killer. Please do not pull the weed(s) out, as this will loosen the surface, which could be detrimental to the longevity of your pathway. Once the weed killer has taken effect, the dead weeds or moss can be removed with a **soft** brush.

Advice

Self-Binding Gravel Pathways are popular because they are both attractive and rustic looking. However, it's crucial to understand that SBG cannot compete with materials such as Tarmac and Concrete for the hardness of the final surface. Additionally, pathways created from Premium Topsoil's SBG should not be used by horses or motorised vehicles and maintenance will be required.

For the best results, consider employing an established contractor with a portfolio of successful SBG pathway projects. Their practical experience could make all the difference in terms of the quality and usability of your pathway.

Over time, with weathering and trafficking, the surface will scarify, giving a light dressing of chippings over the area, while maintaining a bound, solid base