

PERMABOUND

QUICK INSTALLATION GUIDANCE

INTRODUCTION

Resin bound gravel can look very simple to install, but success of any installation is dependent on process consistency and the reduction or elimination of external factors (such as weather, moisture or trowelling techniques) which can cause issues during laying.

This document will provide a *basic* outline of the fundamentals of installation of resin bound gravel, but is *not a comprehensive installation guide* nor a replacement for proper training.

PREPARATION

Before you start installing a resin driveway, it's important to consider the following:

- Is the surface suitable?
- Is the base stable?
- Are there any cracks in the surface?
- Is there any damage?
- Prior to application, ensure that the **surface is free from contamination or water**. This may require cleaning and drying.
- **Test** and record the ambient **temperature**, **relative humidity**, and **ground temperature** before and during application.
- Suitable bases for a resin driveway include tarmac, asphalt, and concrete. These should ideally be permeable for proper adhesion and durability.

Final checks before installing a resin driveway:

- Check the weather forecast and avoid installation if rain is expected during or within 4 hours of completion. It is recommended to have a reliable weather app on your smartphone.
- Use an outdoor hygrometer to check for humidity. If the humidity level is below 80%, it is suitable for work. If it is higher, you may need to postpone the project.
- Ensure that the base surface has been primed and dried.
- Verify the quantity, batch, and colour of aggregates and other materials.
- Re-measure the work area to ensure you have all the materials needed to complete the project.
- Clean and prepare equipment for use.
- Make sure all edges of the work area have been protected with tape to prevent resin staining.
- The process of mixing and laying a resin driveway is straightforward but requires precise accuracy at every stage to ensure success. It is important not to take shortcuts or skip steps.

STEP 1. MIXING RESIN

Although it is a straightforward process, achieving accuracy at every stage is essential for a successful installation.

- When mixing resin, it is important not to take any shortcuts. Generally, only one batch should be used for a project. If multiple batches are necessary, extra care should be taken to ensure that the same batch is used in one area to account for any slight batch-to-batch variations.
- To safeguard against splashes, it is recommended to mix the resin in a container placed on a plasterer's board or another protective surface.
- Before starting the mixing process, ensure that the resin container is securely positioned (between your feet).
- Mix the Part A component of the resin at a slow speed for 10-20 seconds using a high-torque, helical-bladed mixer. If needed, an accelerator can be added at this stage. Refer to the next section for more details.
- Next, add the Part B component and mix thoroughly at a slow speed for approximately 60 seconds until a uniform consistency is achieved.
- Please note that the above instructions are intended as a general guideline. Refer to the manufacturer's specific instructions and recommendations for the resin product you are using

STEP 2. MIXING RESIN, DRIED AGGREGATES, AND SAND

The following steps should be carried out by the Mixer in your three-person team.

1. Place your four bags of aggregate into the mixer, allowing the dust to disperse.
2. Add the pre-mixed resin to the mix and start your stopwatch.
4. Slowly add the bag of KLCP sand.
5. Mixing resin and aggregates for resin bound:
 - Ensure that Steps 2-4 are performed for the same duration in each mix. Failing to do so may result in colour variation in the mix.
 - The mixing process should not exceed 4 minutes. Ensure that the sand is evenly distributed throughout the mix.
6. When the mixture is ready, empty it into your plastic-lined wheelbarrow.
7. Switch off the mixer and ensure that all of the mix is scraped from the mixer. Thoroughly clean the forced action mixer after each mix to prevent contamination.

IMPORTANT POINTS TO REMEMBER:

- Ensure that the aggregates are not damp before mixing.
- Mix for an adequate amount of time to ensure all materials are fully coated.
- Maintain the same duration for every mix.
- Use the correct blend of aggregates.
- Keep the resin and aggregates in a shaded area.

STEP 3. TRANSFERRING MATERIAL TO THE WORK AREA

The following steps should be carried out by the Luter in your team, working in coordination with the Mixer.

1. The Luter is responsible for taking the mix to the designated work area.
2. Tip manageable quantities of the material, ensuring that the mix is spread as evenly as possible. Avoid using excessive material, as it will require more trowelling and working.
3. Inspect the previously trowelled surface from various angles, checking for any inconsistencies. It is crucial to address any marks or anomalies at this stage, as they are easier to rectify before the mix cures.

STEP 4. TROWELLING THE MATERIAL

The following steps should be carried out by the Troweller in your three-person team.

1. Plan the laying route and mark out the area in squares using chalk or marking spray.
2. Indicate where the luter should tip the mix.
3. You can use a screed bar or gauged spazzle to further level the mix before trowelling.
4. Prior to trowelling, ensure that the trowel is thoroughly cleaned with white spirit. Regularly clean the trowel throughout the trowelling process, ideally after approximately every six strokes. A dirty trowel will become sticky and can displace aggregates.
5. Pack aggregates tightly into every edge to eliminate any gaps.
6. Knit the mix together by trowelling, ensuring that the aggregates are densely compacted to create a level surface. Hold the trowel slightly raised from the stroke and apply consistent pressure to avoid the trowel from digging into the mix.
7. Trowel the mix until the aggregates cease to move in a fluid manner and become solid. Aim to achieve this in as few strokes as possible.
8. Once the surface is levelled and compacted, it can be smoothed (polished) to achieve an attractive sheen.
9. Ensure that the edge of each trowelled section remains rough and unworked so that the next batch of aggregates can seamlessly and easily blend into it.
10. For additional slip resistance, lightly and evenly sprinkle crushed glass over the surface.

Please note that the trowelling process is crucial in achieving a uniform and visually appealing resin bound gravel surface. Attention to detail during trowelling will contribute to the overall quality and durability of the finished result.

For more information, materials, tools or training courses, visit the PermaBound website at

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