Resin Bound Installation Guide

AceBound resin bound surfacing is a cold applied clear polyurethane resin, designed to bind natural aggregates to create a highly decorative surface.

It is a permeable, attractive & slip resistant system. Resin bound is growing in popularity for commercial projects and homeowners alike.

Although relatively simple to install, many things can go wrong at various stages. This guide is to assist you in the installation of Acebound Resin Surfacing and help you to reduce the likelihood of any issues that may occur which could be detrimental to your project.

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Preparation

Sub-base

Whether you are installing a new sub-base or overlaying an existing one, preparation is key for a long-lasting surface.

The sub-base should be excavated to 9 inches and increased if solid ground is not reached. Crush & Run should be installed at a minimum of 6 inches (pedestrian) & 7 inches (vehicular) if AceBase or Concrete is being used as the structural base. The hardcore will need to be well compacted to limit movement which may cause subsequent cracking.

Edgings, such as bricks or blocks are required to act as a retainer for your binding and surface course.

It is important to secure them into position well, using sharp sand and cement. This will provide you with a firm & solid edge to work to. Now that your area is framed, it is important to leave the edging proud from your finished sub-base, to allow for a flush finish once the resin has been installed.

If installing concrete, consideration should be given to water run-off, and ensure that the concrete is laid to falls and does not have any low points that could cause puddling.

New Installation

The sub-base should be excavated to 9 inches and increased if solid ground is not reached. Crush & Run should be installed at a minimum of 6 inches (pedestrian) & 7 inches (vehicular). The Crush & Run will need to be well compacted to limit movement which may cause subsequent cracking.

Edgings are required to act as a retainer for your binding and surface course. It is important to secure them into position well, using sharp sand and cement. This will provide you with a firm & solid edge to work to. Now that your area is framed, it is important to leave the edging proud from your finished sub-base, to allow for a flush finish once the resin has been installed.

We suggest Acebase permeable base. It is installed to a depth of 11/2 inches (pedestrian) and the same for (vehicular). If installing concrete, consideration should be given to water run-off, and ensure that the concrete is laid to falls and does not have any low points that could cause puddling.

Existing

Many 1000's square feet are installed over existing bases successfully, however care should be taken to ensure the stability of the surface which is to be covered. It must be stable; any patch repairs or wide cracks should be repaired prior to the application of the resin bound surfacing.

It is advised that resin bound surfacing is not tapered at the edges, this will cause cracking and deterioration of the surfacing. Therefore, when installing over existing sub-bases it is essential to create an edge detail to abut to, this can be paver's, granite sets, trims and more.

Any manhole covers will need to be raised to prevent a trip hazard. Recessed manhole covers are available form builder's merchants and will allow you to create a seamless finish.

It can be advisable to apply a weed killer to prevent any moss or weed growth.

Preparation creates dust and debris on the site. This needs to be removed prior to the application of resin bound. This can be achieved by jet washing the area, ensuring a clean dry and dust free surface to adhere to.

Suggested Base Build Up

Please consult stuctural engineer

	New Construction – Foot Traffic	New Construction Light Vehicular	Overlay Existing Base – Foot Traffic	Overlay Existing Base Vehicular Traffic
AceBound UVR	@ ¾ inch	@ ¾ inch	@ ¾ inch	@ ¾ inch
Geo Grid	N/A	✓	N/A	N/A
Ace ResiMesh	✓	✓	✓	✓
Coarse Sand for Leveling	1/2 Inch	1/2 Inch	N/A	N/A
Crushed Stone Base	Clean well compacted minimum 4 inches	Clean well compacted minimum 6 inches	N/A	N/A
Existing Sub-Base	N/A	N/A	Concrete, tarmac, block paving etc	Concrete, tarmac, block paving etc
Geo-Textile Membrane	✓	✓	N/A	N/A

Site Set Up

A clean and tidy site is very important when installing resin bound surfacing.

Ensure your mixing station is not too far away from the point of application. The mixing station should also be set up on tarpaulin to ensure any spillages are contained and do not contaminate or stain the existing surface.

The leading edge of the block or brick edge detailing will require duct tape to protect them from any marks or contamination, as once the resin has cured it is very difficult to remove.

Remember to organise your mixes prior to application. The correct bags for each mix should be stacked in piles to minimise mixing mistakes. This is generally 4 x 55 lbs bags of aggregate along with a 13.3/4 lbs bag of sand. This mix will cover approximately 37 sf @ 3/4 inch.

Every care is taken to ensure your order is from the same batch. However, it is good practice to check batch numbers. If there are discrepancies, different batches will need to be evenly distributed through the mix to ensure no colour differentiation.

Accurate measurements of the area and depth are important to avoid running short on site and having to introduce a join line. We would recommend allowing for a 5% contingency when placing your orders.

Tools Required

You are now on site; your materials have arrived all preparation and bases have been constructed. You need to make sure you have the correct tools for the job.

- Forced action mixer
- Trowel
- Plasterers mixing paddle
- Drill
- Spazzle or rake
- Wheelbarrow
- Cleaning solution for tools and mixer
- Rags
- Gloves
- Tape
- Timer

Mixing & Application

Mixing AceBound UVR

For ease on site, Acebound Resin is a pre-catalysed.

Additional catalyst may be added to control the curing time and speed up the process during the colder months. For addition rates, please contact Ace Resin Ltd for the latest catalyst addition chart or scan our QR code on AceBound UVR kits.

1) Place AceBound UVR Resin Bound Surfacing Aggregate blend (220lbs) into a clean, dry, forced action mixer (minimum capacity/ power 32 gallon/1.8kW). Mix until the aggregate is evenly blended. Do not over mix the aggregate as this may cause grinding, creating dust and could result in a patchy surface. Approximately **30 seconds** will suffice.

2) Scrape all the contents of AceBound UVR Resin Bound Surfacing B component into the larger A component container and mix with a slow speed drill (≤ 450RPM) and MR2 paddle mixer attachment for **1-2 minutes** until homogeneous.

3) Immediately add the mixed resin to the aggregate in the mixer. Mix the aggregate and resin together until all the aggregate is evenly coated. Mix for approximately **1 -2 minutes**. Over mixing will increase heat generation, reduce working time and may affect the colour. It is recommend to use a timer when mixing. Inconsistent mixing times may cause colour variation.

4) Pour in the 13.3/4 lbs sand and mix for a further **1-2 minutes** until evenly distributed.

Discharge the material into a suitable wheelbarrow and move immediately to the point of application.

Always work to a wet edge. Care should be taken to ensure consistent mixing times, unequal mixing times can cause stone grind and will result in a patchy surface. This may not be obvious until the project has been completed and cured.

Application of AceBound UVR

Pour the whole contents of the mix out of the wheelbarrow and spread with a spazzle or a rake.

Leave the mixture slightly above the required depth. Apply firm pressure on the trowel, flatten and close the surface with forward and backward strokes.

The edge should be left un-trowelled to allow for the next mix to blend seamlessly into the previously one.

Only when the resin is still wet or tacky can any errors be rectified. It is therefore important to check your work for level consistency and any colour inconsistency.

Please refer to our technical data sheet for suitable installation conditions, working times and more.

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