HOW TO CREATE MAXIMUM IMPACT USING RESIN SURFACING IN LANDSCAPING DESIGN



Bring vision to life in urban regeneration using highly versatile resin surfacing systems



ABSTRACT:

THE BENEFITS OF USING RESIN SURFACING IN LANDSCAPING DESIGN AND URBAN REGENERATION:

Resin surfacing solutions offer natural and recycled materials, unlimited colours and designs that no other type of paving can match. It combines outstanding attractiveness and creativity with practicality and sustainability to bring hard landscaping projects to life.

Resin surfacing provides an unrivalled solution that addresses how to create long-lasting stunning outdoor spaces that are both highly functional and harmonious with their surroundings. It creates the ultimate first impression, and is so versatile that it can overcome design challenges; meeting current and predicted building regulations such as providing a compliant and sustainable approach to water conservation in urban areas.

This white paper highlights the advantages of resin surfacing, and how it can be used to create maximum impact in landscaping design to bring your vision to life.



CONTENTS:

RESI	N SURFACING - YOUR PATH TO SUCCESS04	
KEY	ADVANTAGES OF USING RESIN BOUND SURFACING	
•	High aesthetics and versatility of use	
•	Create a bespoke finish06	
•	Add logos and designs to the surface07	
•	Extra finishing touches08	
•	Durable, resistant and low maintenance	
•	Drainage and weather resilience	
•	Excellent safety and accessibility12	
•	Environmentally sustainable	
INSTALLATION		
CONCLUSION AND NEXT STEPS15		
APPI	ENDIX AND CASE STUDIES	



RESIN SURFACING: YOUR PATH TO SUCCESS

Resin surfacing is a naturally sourced mix of gravel, shingle, quartz, crushed granite or other recycled aggregates.

RESIN BOUND VS RESIN BONDED

There are two main resin gravel systems available - resin bound and resin bonded. Here are the main differences:

RESIN BOUND	RESIN BONDED
Permeable (water drains away)	Non-permeable
Multi-layer surface, making it very hard-wearing	Single layer surface with potential for the gravel to become loose and scattered
Smooth, level & seamless finish. Great for accessibility.	Textured appearance of loose gravel.

Though resin bonded surfacing has some disadvantages, it is an excellent way to create texture and a more natural finish. This may be in small areas of the landscaping design to add contrast and for certain applications, for example where high usage or puddles are less of an issue.

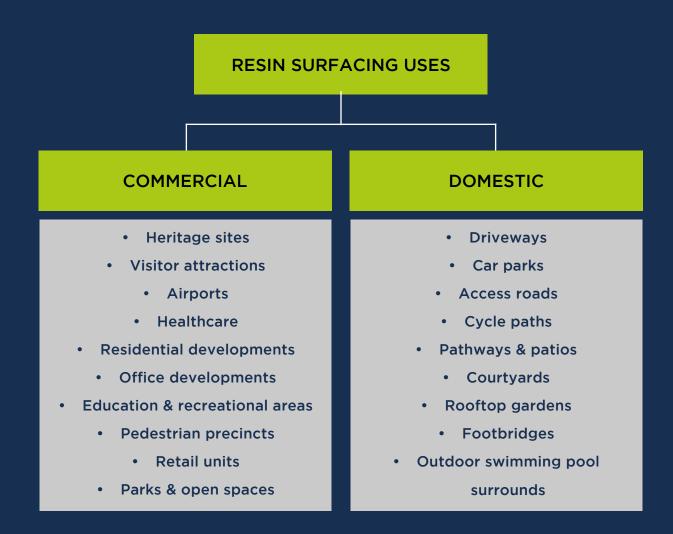
Resin bound gravel systems offer a great deal of aesthetic and functional benefits that are suitable for any landscape. The following section focuses on the advantages of resin bound surfacing and how resin bonded gravel systems can be used alongside.

KEY ADVANTAGES OF USING RESIN SURFACING

HIGH AESTHETICS AND VERSATILITY OF USE

Transcends the realms of domestic and commercial:

Resin surfacing has been used for many years in a broad spectrum of environments and projects and also in the domestic market for driveways, paths and patios.



CREATE A BESPOKE FINISH:

There are vast colour variations for resin surfacing, providing lots of choice and versatility for hard landscaping design. It is also possible to source custom blends to match your requirements. From subtle colours to suit the site's natural surroundings to vibrant contrasts to strike dynamic statements; there is a superb finish available for any design. Resin bound creates a contemporary look and yet it can seamlessly be applied to sites of historic splendour. In fact, English Heritage and the National Trust have approved resin bound paving systems for use in their historic sites.



Resin bound surfacing is ideal for creating decorative patterns and unique designs to add flair to the external areas of your commercial property. It can be styled with brick or aluminium edging, block paving, steel structures and other materials. Clever use of colour or texture can be used to demarcate areas, signage, boundaries, edges and even traffic calming.

Stylish and functional landscaping can give you the competitive edge in business. Make the right impression with your design and let your brand personality shine through.

ADD LOGOS AND DESIGNS TO THE SURFACE:



Resin bound surfacing can be used to re-create logos, graphics and emblems on your commercial site. This effect really stands out, and when used in entrance areas, it presents a truly professional and remarkable finish that sets the tone for your business before customers walk in through the door.

This visual application is put to great use for example in the grounds of schools and in children's play areas to create colourful scenes, educational learning and activities.



EXTRA-FINISHING TOUCHES:

Tree Pits

Resin bound tree pits are designed to provide an attractive and aesthetically pleasing solution for trees planted amidst resin bound surfaced pathways and gardens. The tree pits are installed flush with the surrounding paving areas, so they have the added advantage of not becoming litter traps which occurs with traditional metal tree grilles. The porous nature of the tree pits also replaces the need for mulch or gravel which can become scattered across the ground.



Rubber Mulch

This is a unique bound-in solution that gives a beautiful natural bark appearance to pathways and gardens. The environmental benefits of 100% recycled rubber bark make it far superior and more practical than organic mulches.



Rubber Crumb

Rubber crumb surfacing (or wet pour) is a decorative safety flooring system designed for playgrounds, schools, nurseries and sport or recreational areas. It is installed at depths corresponding to its surrounding play equipment or usage. It is available in a vast array of colours and can be laid to create limitless designs.



Drain Covers

Unattractive elements such as drain covers can be blended in using inset lid covers filled with resin bound mixture, so you have a continual uninterrupted surface.



DURABLE, RESISTANT AND LOW MAINTENANCE:

Not only is resin bound more aesthetically appealing, it is stronger and more durable than asphalt, gravel, concrete and block paving. It is triple-layered for superior strength and creates a long lasting finish that is also resistant to sunlight. UV stable resin is colour stable, which means it remains true in sunlight.

There are also standard resins that are non-UV, causing discolouration after a few months of exposure to sunlight.

Resin bound surfacing creates a smooth and seamless finish with no loose stone. It is also flexible and resistant to cracking. The typical lifespan of resin bound surfaces, depending on usage, is in excess of 15 years – making it one of the most durable surfaces available today.

Resin bound surfaces require little maintenance, and due to its hard-wearing multilayer build, it does not shred gravel and there is no weed growth. A quick sweep will remove leaves, and moss can be pressure-washed away. You can clean the surface with a power washer without damaging it when used at the correct nozzle distance and settings.

Resin bound surfaces are extremely resistant to staining and most chemicals including petrol, diesel and oil – another reason why it is ideal for use on car parks, driveways and access roads.

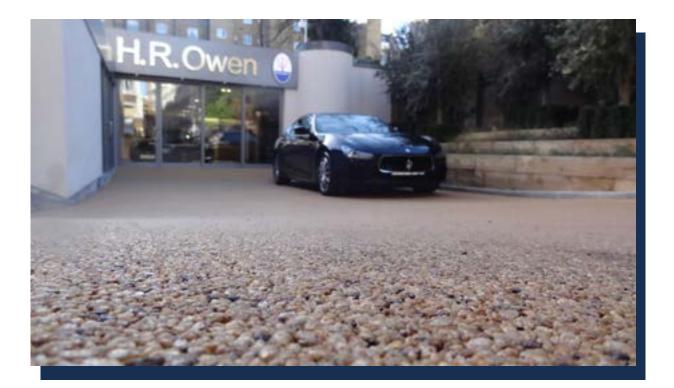
When combining the durability and low maintenance advantages, resin bound surfacing is a highly cost-effective solution to other options such as tarmac, concrete and block paving.

DRAINAGE AND WEATHER RESILIENCE:

Resin bound surfaces are permeable (porous), which means the materials used naturally drain water through the finished surface. This forms a puddle-free zone that is not prone to flooding. The rain water is able to easily drain away and reach the surrounding plants and trees, allowing them to grow and flourish even when surrounded by the stone surfacing.

As a result, resin bound surfaces are Sustainable Urban Drainage System (SUDS) compliant. They can be used to reduce the potential impact of new and existing urban developments where rainwater may be prevented from entering soil or other water sources due to impermeable surfaces such as concrete and asphalt.

The highly porous nature during the winter months ensures the rain soaks away, leading to minimal ice build-up that would otherwise cause a slippery surface for walking and driving.



EXCELLENT SAFETY AND ACCESSIBILITY:

The stones embedded into the surface give resin bound surfaces a natural friction providing slip-resistance under foot, and excellent tyre traction. Both are great for public safety. The anti-slip can be further enhanced by adding a non-slip coating, which is perfect for outdoor swimming pool surrounds and surfaces with extra gradients. Despite the natural friction, the surface is smooth and comfortable to walk on, even under bare feet.



Resin bound surfaces are super-flat and ideal for use on ramps, which is great for accessibility. The smooth surface enhances the experience for wheelchair users, people on mobility scooters, and also families with pushchairs. Furthermore, children enjoying riding their bikes and scooters on the surface.

ENVIRONMENTALLY SUSTAINABLE:

Unlike other paving systems, resin bound surfacing is sustainably sourced, and comprises of natural stone and recycled materials. It is up to 10 times more ecofriendly than concrete; and yet stronger and more durable without the heavy cost to the planet.



With resin bound surfaces being so permeable, they provide a sustainable and planned approach to water conservation – meeting the demands for sustainable urban drainage.

Furthermore, the use of resin bound surfaces reduces resource consumption, minimises waste materials and well as reducing our carbon footprint.



INSTALLATION:

The resin bound surfacing mixture can be applied onto asphalt, concrete or other stable substrates. The mixing process must be carefully controlled to ensure that each particle of aggregate is thoroughly coated in resin, before the mix is handtroweled on to the surface and left to cure.

Resin bound surfaces can be installed and ready to use quickly. It is conveniently fast drying and is usually able to be used by the following day.

Success with aggregates relies on choosing the right mix for the job. For example, different textures can be created to suit different applications, for example soft aggregates like marble chips will not take the weight of cars but can be added to paths with stunning effect. It is best to engage with a qualified supplier who has expert knowledge and is able to advise you.

Resin bound surfacing is designed to be uniform and consistent in appearance, but this will only be achieved if uniform and consistent working practices are adhered to. Once it is set, it is impossible to change, so care is needed to avoid expensive rectification.

Resin bound surfacing is a specialist material that should only be applied by experienced operators who are qualified and hold BBA (British Board of Agrément) certification. This assures the materials, installation and durability of the resin bound surface. The operator must continually meet the standards expected by the BBA, and they are reviewed by them every three years.

CONCLUSION AND NEXT STEPS:

Resin bound surfacing is an ideal decorative solution for any landscaping design. It holds many advantages while enhancing space, understanding the environment and reflecting the socio-economics of the area. It is also the only hard landscaping solution that allows you to innovate while benefiting the environment.

To begin using resin bound surfacing in your landscape designs, seek advice as to what mixture is best for your application, and find yourself a reputable and qualified supplier and installer.



APPENDIX - CASE STUDIES

Lidl HQ

Location: Tallaght Ireland Project Cost: Approx. £5.1 Million Sector: New Build & Design System Used: DekorGrip Resin Bound Completion Date: June 2015



A new surface was required to support the offices of Lidl HQ in Dublin. The project was very large and included mixing traditional concrete sections with resin bound.

A DekorGrip resin bound surfacing system in the cornfield blend was an ideal fit for the project, offering the durability required for such a high use area. This would be installed at a depth of 16mm to ensure that the surface would withstand the high traffic.

The final result was a great surface that enhanced the modern aesthetics of the office block. DekorGrip aided the project, and not only did it meet its planned completion date, but kept well within the design and cost parameters.

D-Day Museum

Location: Portsmouth UK Project Cost: Approx. £4.8 Million Sector: Heritage Regeneration System Used: DekorGrip Resin Bound Completion Date: May 2018



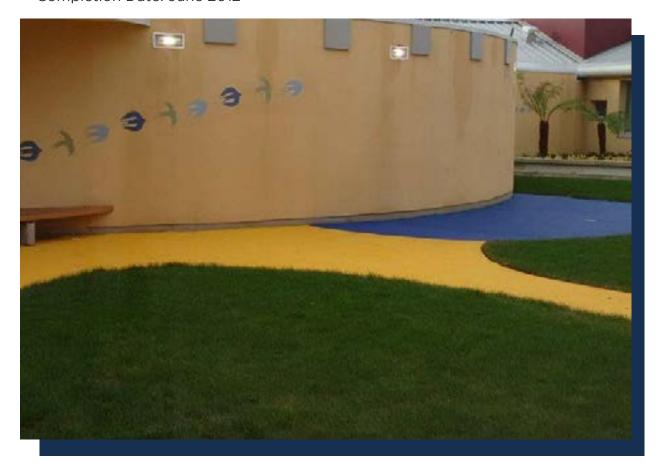
The iconic D-Day museum is situated along the Southsea sea front in Portsmouth. It originally opened in 1984. The building was in need of an overhaul and update throughout, as well as the surrounding landscape and surfacing. The work at the museum was planned to be carried out ahead of the 75th anniversary of D-Day (6th June 2018).

The project in hand was not only big, but also complicated, due to the museum being in a historical and protected setting. Numerous challenges had to be planned for and overcome during the course of the project.

After agreeing with the client, a combination of Natural Wicker and Sandringham aggregate blends were selected to be laid at a depth of 20mm, which would sustain the demand of footfall. The choice of blends allowed the contractor to provide distinctive areas around the museum, highlighting walkways and other features.

Cherry Orchard Hospital

Location: Dublin Ireland Sector: New Build & Design System Used: DekorGrip Rubber Crumb Completion Date: June 2012



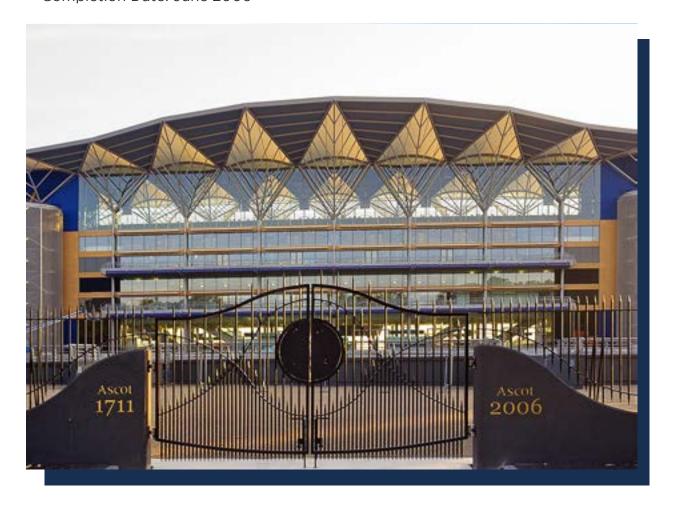
A recent development of Cherry Orchard Hospital's child and adolescent mental health facility were improving their exterior areas of the unit. A safe yet attractive surface was required to accompany the newly built area. The contractors also required training as they were inexperienced with the application of a rubber bound surface.

Meon's DekorGrip supplied rubber crumb aggregate in a variety of colours, as well as providing training to the contractors. To ensure the surface was laid to the DekorGrip high standard, a team member visited the site several times to provide tips and ensure quality.

The finished result was a safe, attractive surface, with well-chosen colours to fit the environment. DekorGrip was proud to have been selected to provide the surface to the Cherry Orchard Hospital, and provided a safe surface for all to enjoy.

Ascot Racecourse

Location: Ascot UK Sector: Redevelopment System Used: DekorGrip Resin Bond Completion Date: June 2006



A surface fit for a Queen was required at Ascot Racecourse, including the main gates, which only the reigning monarch can enter. The need for the facilities and grounds to be pristine and immaculate at all times is a top priority.

DekorGrip resin bond in Brittany Bronze was selected to be a suitable elegant finish, perfectly complimenting an entrance made for a Queen. Not only would this be installed around the main gates, but also throughout a large part of the site.

The end result was a stylish and aesthetically pleasing surface. The installation, carried out by one of DekorGrip's approved installers, was carried out by the completion date, as well as within the design and cost parameters.

The Hard Interchange

Location: Portsmouth UK Project Cost: Approx. £7.5 Million Sector: Redevelopment System Used: DekorGrip Resin Bound Completion Date: July 2017



The Hard Interchange is a huge asset to Portsmouth, being one of the biggest transport interchanges in the area. Buses, trains, and boats all run services from it, and it is often the first thing visitors see when arriving in the city by public transport. Despite this, the area was run down and over crowded, with multiple old bus stops crowding one small area and providing little seating for visitors. Following consultation with residents and businesses, Portsmouth City Council decided to transform the area into a modern and stylish interchange that is both safer and more attractive to its visitors.

A hard wearing yet attractive surface was needed to complete the project after the main building had been built and the old bus stops removed. The council specified a Dekor-Grips compliant surface, in order to reduce surface water run-off and the risk of flooding. DekorGrip's Resin Bound surfacing offered the perfect solution, due to its durability and the fact that it is permeable. It was selected in two different blends, to match the modern and fresh feel of the regenerated area. The success of DekorGrip's recent project with Portsmouth City Council, The Northern Road bridge, gave the council confidence to go through with the Hard Interchange.

The project was completed ion 2017 and has received a vast amount of positive feedback from both locals and visitors. DekorGrip resin bound was installed in Frosted Dawn and Mocha Beach blends to compliment the new building perfectly, and give a fresh and new feeling to the whole area.

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