

Resin Surfacing

Paving the Way to
a Sustainable
Future



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**LOOK OUT
FOR
OUR**



ADTEX

Resin Bonded Decorative Surfacing



ADBRUF 

Improve the appearance of bland, boring surfaces with Adtex

Adtex is Adbruf's resin bonded paving system, sometimes referred to as "scatter coating", "broadcast" or "coat" systems.

Adtex comprises two elements, our unique bio-mass resin and selected aggregates. A wide range of aggregates are available, from subtle cream limestones to bold red granites.

Adtex has been developed to provide an attractive, highly durable solution that gives exceptional adhesion and is a long-lasting, contemporary approach to surfacing.

Areas of Use

- Drives
- Footpaths
- Heritage and conservation areas
- Roads
- Prestige property developments
- Parks, gardens and leisure areas
- Urban landscaping
- Pedestrianisation schemes
- Cycleways
- Car parks

Features and Benefits

- Produces stunning surfaces
- Highly durable
- Flexible, even at low temperatures
- Neutral resin colour enhances the appearance of the aggregate dressing
- Solvent-free
- Odour free during and after application
- Environmentally friendly, biomass-based resin component
- Suitable for solid, even and crack-free asphalt and concrete substrates
- Perfect for harmony with the existing environment
- Equally suited to lightly trafficked and pedestrian areas
- Easily cleaned
- Superb range of aggregates available
- Bonds strongly

New Application Video Guide - Visit www.adbruf.com



Rhine Gold



Staffordshire Pink



Golden Quartz



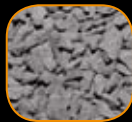
Autumn Gold



Brittany Bronze



Chinese Buff



Grey Granite



Guyanana Bauxite



Red Granite



Green Granite

These are a few examples of the aggregates that are available from Adbruf - Contact us for more information. Please be aware that our aggregate range is continually being updated - Visit our website for more information.

What to do next.....

Visit www.adbruf.com to watch our two new Adtex videos. Our Adtex Product Video highlights the many benefits from choosing an Adtex surfacing system. Our Adtex Application Video Guide provides comprehensive advice on how to install an Adtex surface. Sit back, relax and watch our videos today.

Call or email us now to discuss your requirements in detail.

To find out more about our full range, call us or visit our website where you can view our full product catalogue and obtain further information on all of our products.



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ADTEX

Resin Binder for Bonded Aggregate Surfacing

Description

Adtex is a flexible, two part, solvent free polyurethane hybrid resin binder system which, when used in conjunction with selected aggregates, provides a complete resin bonded surfacing system. A variety of colours, shades and textures is achievable by the selection of specially selected aggregates available from Adbruf.

Uses

Adtex has been developed to provide an aesthetically pleasing, highly durable surface. It is particularly suitable for use in prestige developments to give a luxury 'feel' and in conservation areas where harmony with the surrounding environment is important. The wide range of aggregate colours and shapes available offers the potential to introduce design elements into landscaping and refurbishment projects.

Benefits

Adtex is a unique polyurethane hybrid that confers many advantages over alternative materials.

To Epoxies:

- Quicker curing, especially at lower temperatures
- Less affected by extremes of temperature
- Greater flexibility
- Less affected by age embrittlement
- Less prone to debonding

To Typical Polyurethanes:

- Longer open-time
- Better low-temperature flexibility

Adtex provides a good bond to many substrates, including most asphalts, bitumen macadams and concrete substrates but also to wood and other substrates.

Technical	
Specific Gravity	0.98
Pot life at 20°C	(approx) 20 minutes
Aggregate Coverage	8-10 kg/m ² fully blinded
	5-7 kg/ retained
Resin System Coverage	12-15m ² per pack
Initial set @ 20°C	1 hour
Open to use @ 20°C	2 hours
Pack size	17.5kg



Colours

Adtex resin is supplied in a neutral amber colour to compliment the finish achieved from most natural aggregate dressings. The colour and shade of the finished surface is inherent in the choice of aggregate. A wide range of natural and manufactured aggregates can be used. The normal size range is between 1 and 3mm approx. Larger or smaller sized aggregates can be used with a corresponding adjustment to resin film thickness. Aggregates must be sound enough to withstand the loads envisaged and it is vital that aggregates are clean, dry and free from dust. The customer should ensure that any slip/skid resistance requirements are addressed. Adbruf can supply a range of aggregates selected for their appearance and performance.

Surface Preparation & Product Application

For detailed surface preparation and product application instructions, please refer to the separate Adtex Method Statement.

Aftercare

It is normal for the surface to shed loosely bonded aggregate for a period of time after application. This aggregate is surplus to the bonded layer and can be swept or lightly pressure washed off. Sweeping should be carried out several times in the first few weeks after installation until no further loose aggregate can be recovered. Otherwise, ongoing aftercare is not normally necessary. However, loose detritus such as leaves and mud can be removed by light pressure washing, ensuring that the nozzle is held more than 15cm (6") away from the surface. Oil staining can be treated with a stiff brush and a strong solution of detergent and water. This should be flushed away with clean water afterwards.

Packaging and Storage

Adtex is supplied in 2-part sealed containers - Part A and Part B. The combined pack weight is 17.5 kg approx. Store under cover in dry conditions. Shelf life is normally 12 months in the above storage conditions.

Health & Safety

See separate Safety Data Sheet

Published June 2015

GEOPAVE STANDARD

Resin System for Bound Aggregate Paving

Description

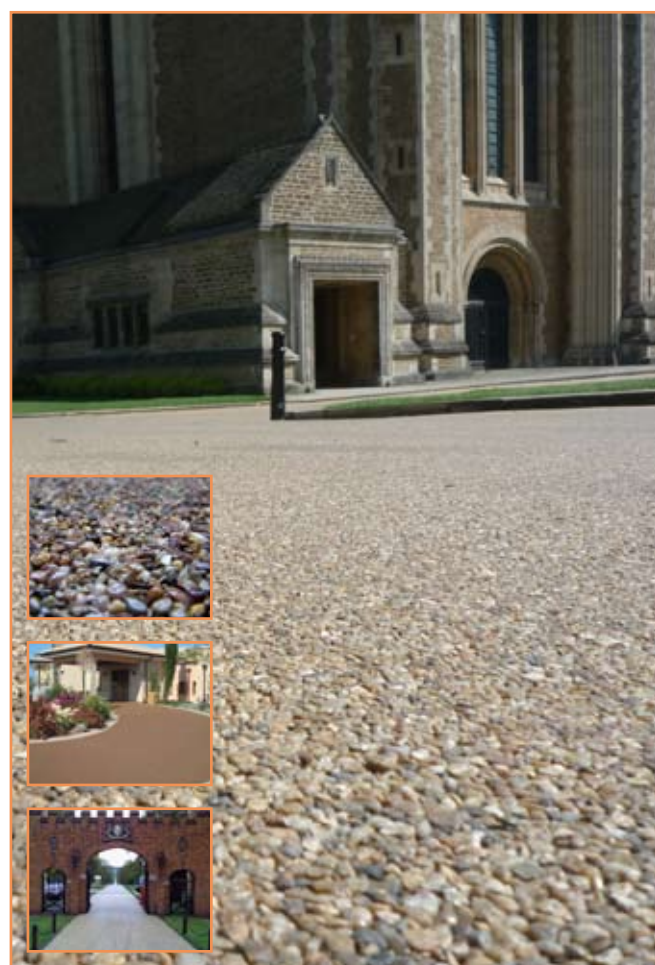
GeoPave Standard is a flexible two-component polyurethane resin system formulated for use in resin bound aggregate surfacing systems.

Resin bound aggregate surfacing systems combine durability and performance with a stunning appearance. Their use will transform the visual appeal of any surface and the wide range of colours and textures available from natural and manufactured aggregates give the specifier many options in designing the built environment.

Uses

GeoPave Standard is manufactured for use as the binder within a resin bound aggregate paving system. It is suitable for both external and internal use.

Areas of use include driveways, heritage sites, estate roads, parking areas, footpaths, cycleways, courtyards, pathways, public parks, pedestrian precincts, office buildings, landscaping schemes, schools, walkways, tree pits, patios, conservatories, garden design, playgrounds, swimming pool surrounds, disabled access ramps, roof terraces, and balconies.



GeoPave is suitable for use over typically encountered load bearing substrates such as asphalt and concrete.

Benefits

- Highly attractive surfaces
- Suitable for use with wide range of different aggregate blends
- Permeable – SUDS compliant
- Environmentally friendly, biomass-based resin component
- Highly durable yet flexible and resistant to cracking
- Smooth, easily maintained surface
- No loose stones, restricts weed growth
- Solvent free, so odour free before and after installation
- External or internal use
- Standard and UV resistant grades available
- Adaptable curing times using optional catalyst
- Unique hybrid thermoset resin binder

Technical	Standard
Specific gravity – mixed resin	1.04 kg/l
Mixed resin pot life @ 20°C (approx)	25 minutes
Initial set @ 20°C	40 minutes
Full cure in bound system @ 20°C	24 hours
Spread Rate (approx. per 100 kg of typical aggregate, assuming bulk density of 1.67)	
12 mm surface depth	4.99 m ²
18 mm surface depth	3.32 m ²
25 mm surface depth	2.39 m ²

SUDS

Sustainable Urban Drainage Systems (SUDS) is the name given to the relevant UK Government legislation that came into effect in October 2008. Surface water needs to be removed, particularly in built-up areas, to prevent flooding. SUDS are surface water and drainage management methods and actual devices designed to tackle excess water in a sustainable and economical way compared to conventional systems.

GeoPave Standard has been developed as a SUDS compliant permeable system. GeoPave Standard allows water to soak through the surface, helping prevent the rapid surface water runoff that causes flooding.

A typical base build up is set out in our separate Permeable Driveways (SUDS) guidance note.

PRODUCT INFORMATION - GEOPAWE STANDARD



Tree Pits

GeoPave Standard provides the ideal solution to problems commonly associated with open tree pits and metal tree grilles, such as litter and waste, trip hazards, weeds and vandalism.

GeoPave Standard is a fully permeable product which allows water to pass through to the roots of the tree without the need for watering tubes, whilst at the same time providing an attractive surface which is flush with its surroundings and which prevents the harbouring of litter and other detritus. It creates a hard wearing, natural finish that compliments any environmental improvement scheme.

Colours

GeoPave Standard resin is a neutral amber colour and is particularly suitable for buff, yellow, red and brown aggregates. Some initial darkening of the resin binder may occur through the effects of sunlight in the early life of the finished system. This slight darkening can often be complimentary to the aggregates used.

Adbruf also produce GeoPave UVR, a premium grade which is more resistant to the fading or discolouration which may arise from the naturally occurring effects of ultraviolet waves within sunlight.

Colours, shades and textures achievable from the finished system result from the combination of the aggregate and resin binder system used. A blend of aggregates is typically chosen to give the correct strength and cohesive matrix, as part of this the aggregate size can be as much as 25mm for tree pits. Adbruf supply a range of suitable aggregates selected for their appearance, colour and performance.

Aggregates

Natural aggregates such as gravel, flint, quartz, granite and marble can be used to enhance your design. Other special materials such as certain types of glass, plastics, rubbers and crushed ceramics can also be used. Where it is important to maintain the initial colour we recommend that GeoPave UVR grade is used in conjunction with such materials. If considering using special materials, please consult Adbruf for further advice

prior to use.

We supply aggregates that have been specifically selected for use in GeoPave Standard. You may choose to independently source aggregates elsewhere but when doing so, it is essential that they are dry and free from dust, silt, clay or any other foreign material, as these will seriously affect the ability of GeoPave resin to form a bond with the aggregate. It is also important to ensure that the aggregate grading is suitable for the installation.

Mix Designs

The ideal aggregate blends for use with GeoPave Standard resin are those of a yellow, buff or dark colour where the known darkening of the resin binder will have little visible effect. For other colours GeoPave UVR grade may be more appropriate.

The final strength of a resin bound aggregate surfacing system using GeoPave resin is determined by the choice of resin, aggregate (and its grading) and degree of compaction during installation. The installer must satisfy himself that the proposed mix is suitable for the intended use. A combination of two or more aggregate grades should be used to achieve a cohesive mix. Where greater strength is needed, a more graded mix using three or more aggregates may be necessary. If so, the percentage binder content may need to be higher to compensate for the increased surface area of the aggregate.

Adbruf offers a range of standard aggregate blends suitable for use with GeoPave Standard. Our aggregate range is periodically updated so please contact us for details of the blends that are currently offered.

Additional skid/slip resistance may be achieved by the light broadcasting of suitable grades of fine high PSV and AAV materials onto the surface of the resin bound aggregate paving system whilst it is still wet and before its initial set, these additional skid/slip resistant materials should be harmonious with the appearance of the aggregate in the GeoPave system.

Adbruf have a wide range of materials specifically for this purpose.

Application

The procedures set out in our separate GeoPave Method Statement should be followed carefully to ensure the correct application of GeoPave. Adbruf organise Product Familiarisation training days for trade customers on a regular basis. We recommend that resin bound paving systems using GeoPave are applied by experienced contractors.

Performance and Aftercare

The final resin bound aggregate surface requires minimal maintenance. To maintain the appearance of the surface, regular sweeping should be undertaken using a stiff brush to keep it clean and free from leaves, berries, general detritus and loose aggregate. Mechanical brushes using steel bristles must not be used. Where it is necessary to remove stains caused by oil spillages, domestic detergents or degreasers may be used with care. The use of cold pressure washing may be used to remove ingrained dirt etc, however close contact high pressure water jetting should be avoided.

ADBRUF

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PRODUCT INFORMATION - GEOPAVE STANDARD

Whilst resin bound paving using GeoPave Standard resin is inherently flexible and resistant to deformation, it is important to ensure that the surfaces upon which it is laid are free from defects and faults and are capable of withstanding the effects of expected loadings during both summer and winter conditions.

Any spillage of fuel or solvents must be cleaned by the appropriate methods as soon as possible.

Packaging and Storage

Each pack consists of two components, comprising a base and an activator component in sealed containers. GeoPave Standard is currently supplied in a 6.5 kg pack size designed for a typical 100 kg aggregate blend, however the appropriate ratio of aggregate to resin binder that should be used will depend on the nature of the aggregate being used, its bulk density and surface area.

For Tree Pits, smaller packs are available which contain 4 kg of total resin binder.

Store all materials under cover in dry conditions. Do not allow extreme temperature fluctuations.

If Activator components (Part B) are stored at very low temperatures, crystalline deposits may form within it. The Activator must not be used in this condition. However, an Activator that is affected in this way, can be warmed and allowed to remain at room temperature 20°C. The crystalline deposits should dissolve leaving a clear brown liquid once more.

Shelf life is normally 12 months in the above storage conditions.

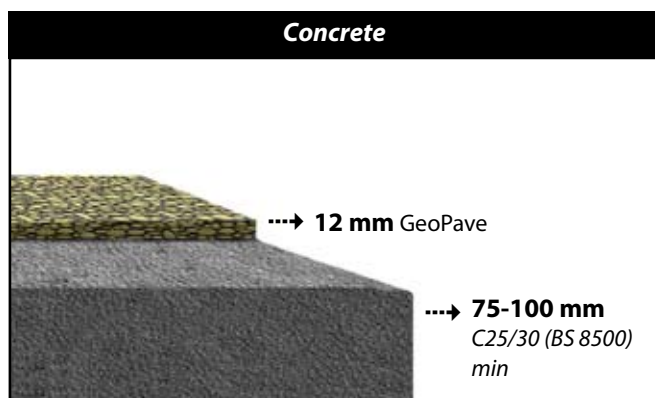
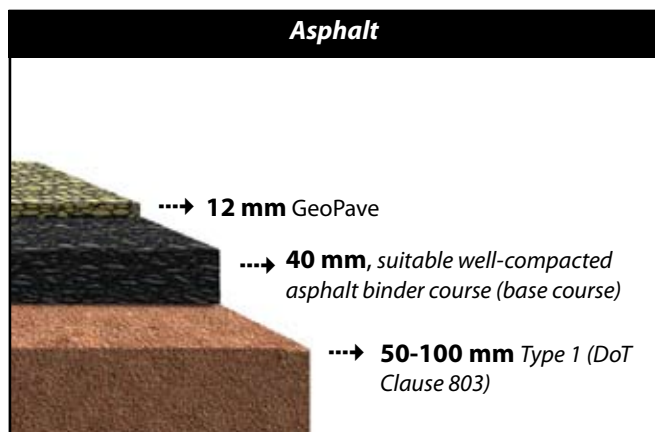
Important: Under no circumstances should damp aggregate be used.

Health & Safety

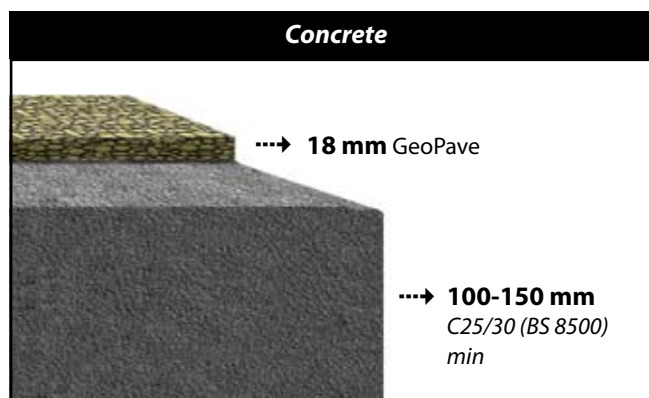
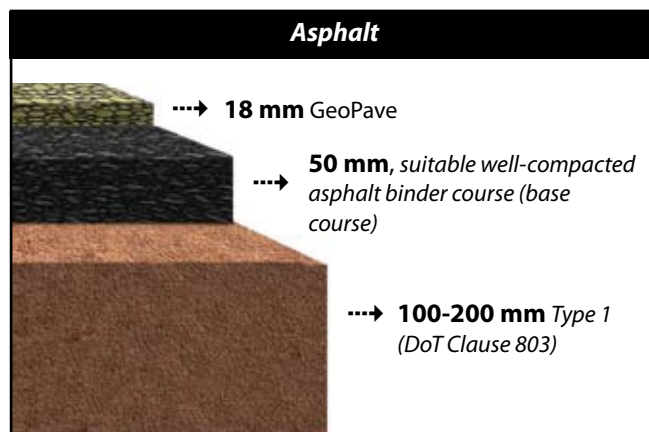
See separate Safety Data Sheet

Base Build-Up

Pedestrian



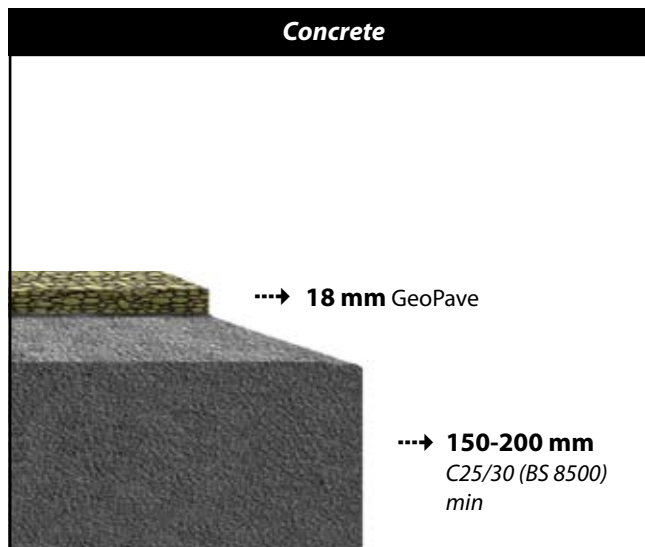
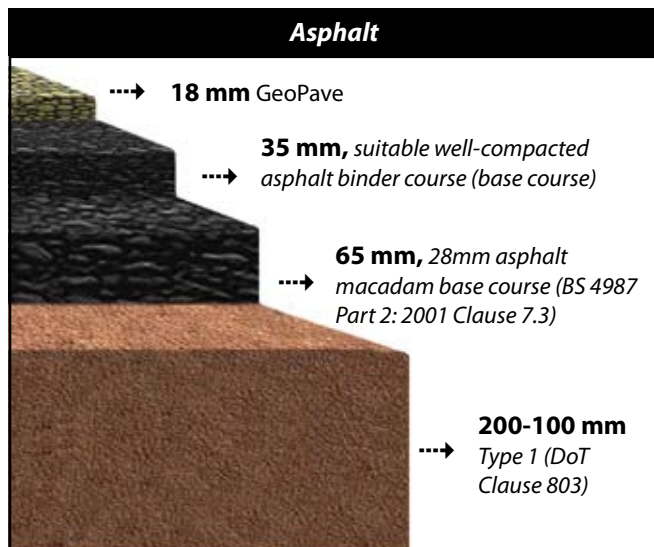
Domestic Driveway



PRODUCT INFORMATION - GEOPAVE STANDARD

Base Build-Up

Car Park Bay



Please note that any technical information or advice given by Adbruf Ltd is based on laboratory conditions/testing and practical experience. Application techniques and site conditions are beyond the control of Adbruf and we can therefore not be liable for any anomalies that may arise.

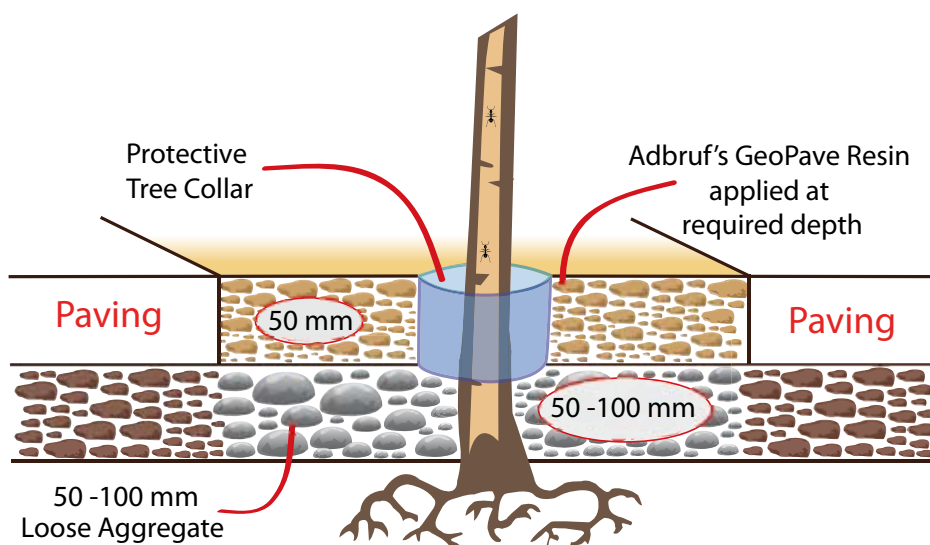
All base build-up details are intended as a guide only and the information stated does not constitute a specification.

Tree Pits

GeoPave Tree Pit packs are designed to provide an attractive and aesthetically pleasing permeable paving system using a variety of natural or recycled aggregates.

The GeoPave Standard resin binder is mixed with a suitable natural or recycled aggregate with a typical grading of 6-10 mm, (certain coloured aggregates up to 25 mm have been used). The aggregate selected must be clean, free of fines and dry.

The open texture achieved when using the combination of GeoPave Standard resin and a suitable aggregate provides a highly permeable surface allowing surface water to drain away and yet still reach the roots.



Planting:

The tree should be planted and anchored in urban tree soil or similar.

Kerb edging and collar detail:

A suitable edging material and collar should be installed around the base of the tree and at the edges as required.

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GEOPAVE

Resin Bound Decorative Surfacing



ADBRUF 

GeoPave is the modern approach to paving!

GeoPave is a trowel-finish, resin bound paving system that is available in a wide range of natural aggregates, recycled materials, marble and glass.

GeoPave provides a smooth, attractive, UV stable and hard wearing surface. The system can overlay existing surfaces such as tarmac, concrete and other stable substrates, and is also ideal for new build projects.



GeoPave TREE PIT PACKS

Adbruf's GeoPave Tree Pit Pack provides the solution to problems associated with open tree pits and metal tree grilles such as litter and waste, trip hazards, weeds and vandalism.

Adbruf's Tree Pit Pack is a fully permeable product which allows water to pass through to the roots of the tree without the need for watering tubes. GeoPave creates a hard wearing, natural finish that compliments any environmental improvement scheme.



Features and Benefits

- Aesthetically pleasing
- Highly durable
- Flexible
- No loose stones
- Restricts growth of weeds
- Solvent-free
- Odour free during and after application
- Environmentally friendly, biomass-based resin component
- Produces stunning surfaces
- SUDS compliant
- Internal or external use
- Adaptable curing times
- Tree pit packs available
- Standard and UV resistant versions available
- Perfect for harmony with the existing environment
- Superb range of aggregate blends

Uses Include:

Access roads, driveways, landscape schemes, footpaths, patios, flat roofs/balconies, tree pits, new developments and as part of a SUDS system.

New Application Video Guide - Visit www.adbruf.com

SUDS

Sustainable Urban Drainage Systems (SUDS) must be adopted as a result of the UK Government Legislation that came into effect in October 2008.

SUDS are surface water and drainage management methods and devices designed to tackle the amount of excess water in a more sustainable and economical way, particularly in built-up areas to prevent flash flooding.

GeoPave has been developed as a SUDS compliant pervious system. GeoPave allows water to soak through the surface, helping prevent the rapid surface water runoff that causes flash flooding.

Aggregates such as flint, quartz, granite, marble and even recycled materials like crushed ceramics can be used to enhance your design. These are a few examples of the aggregate blends that are available from Adbruf - Contact us for more information. Please be aware that our aggregate range is continually being updated - Visit our website for more information.



Sterling Silver



Angular Buff



Amber



Jet Black



Rustic Gold



Timeless Terracotta

What to do next.....

Visit www.adbruf.com to watch our two new GeoPave videos. Our GeoPave Product Video highlights the many benefits from choosing a GeoPave surfacing system. Our GeoPave Application Video Guide provides comprehensive advice on how to install a GeoPave surface. Sit back, relax and watch our videos today.

Call or email us now to discuss your requirements in detail.

To find out more about our full range, call us or visit our website where you can view our full product catalogue and obtain further information on all of our products.



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GEOPAVE UVR

Resin System for Bound Aggregate Paving

Description

GeoPave UVR is a flexible two-component polyurethane resin system formulated for use in resin bound aggregate paving systems. It is an aliphatic polyurethane system which is highly light stable. The UVR suffix denotes ultraviolet resistant.

Resin bound aggregate surfacing systems combine durability and performance with a stunning appearance. Their use will transform the visual appeal of any surface and the wide range of colours and textures available from natural and manufactured aggregates give the specifier many options in designing the built environment.

Uses

GeoPave UVR is manufactured for use as the binder within a resin bound aggregate paving system. It is suitable for both external and internal use.

Areas of use include driveways, heritage sites, estate roads, parking areas, footpaths, cycleways, courtyards, pathways, public parks, pedestrian precincts, office buildings, landscaping schemes, schools, walkways, tree pits, patios, conservatories, garden design, playgrounds, swimming pool surrounds, disabled access ramps, roof terraces, and balconies.

GeoPave UVR is suitable for use over typically encountered load bearing substrates such as asphalt and concrete.



Benefits

- Highly attractive surfaces
- Suitable for use with wide range of different aggregate blends
- Permeable – SUDS compliant
- Environmentally friendly, biomass-based resin component
- Highly durable yet flexible and resistant to cracking
- Smooth, easily maintained surface
- No loose stones, restricts weed growth
- Solvent free, so odour free before and after installation
- External or internal use
- UV resistant and Standard grades available
- Adaptable curing times using optional catalyst
- Unique hybrid thermoset resin binder

Technical	UVR
Specific gravity – mixed resin	1.04 kg/l
Mixed resin pot life @ 20°C (approx)	25 minutes (typical *)
Initial set @ 20°C	40 minutes (typical *)
Full cure in bound system @ 20°C	24 hours
Spread Rate (approx. per 100 kg of typical aggregate, assuming bulk density of 1.67)	
12 mm	4.99 m ²
18 mm	3.32 m ²
25 mm	2.39 m ²

*** Typical value: catalyst should normally be used with GeoPave UVR and full cure will be dependent upon the amount of catalyst added.**

Use of Catalyst

In order to achieve an acceptable cure time, a catalyst should normally be used with GeoPave UVR. Cure times are affected by both the temperature and the amount of catalyst added. Adbruf supply Catalyst VA5 specifically for use with GeoPave UVR and details of its addition are set out in our GeoPave UVR Method Statement.

SUDS

Sustainable Urban Drainage Systems (SUDS) is the name given to the relevant UK Government legislation that came into effect in October 2008. Surface water needs to be removed, particularly in built-up areas, to prevent flooding. SUDS are surface water and drainage management methods and actual devices designed to tackle excess water in a sustainable and economical way compared to conventional systems.

GeoPave UVR has been developed as a SUDS compliant permeable system. GeoPave UVR allows water to soak through the surface, helping prevent the rapid surface water runoff that causes flooding.

PRODUCT INFORMATION - GEOPAVE UVR

A typical base build up is set out in our separate Permeable Driveways (SUDS) guidance note.



Tree Pits

GeoPave UVR provides the ideal solution to problems associated with open tree pits and metal tree grilles such as litter and waste, trip hazards, weeds and vandalism.

GeoPave UVR is a fully permeable product which allows water to pass through to the roots of the tree without the need for watering tubes, whilst at the same time providing an attractive surface which is flush with its surroundings and which prevents the harbouring of litter and other detritus. It creates a hard wearing, natural finish that compliments any environmental improvement scheme.

Colours

GeoPave UVR resin is exceptionally resistant to discolouration after exposure to light. It is best suited for use with light coloured aggregates or other aggregates where colour stability is a key requirement.

Colours, shades and textures achievable from the finished system result from the combination of the aggregate and resin binder system used. A blend of aggregates is typically chosen to give the correct strength and cohesive matrix, as part of this the aggregate size can be as much as 25mm for tree pits.

Adbruf supply a range of suitable aggregates selected for their appearance, colour and performance.

Aggregates

Natural aggregates such as gravel, flint, quartz, granite and marble can be used to enhance your design. Other special materials such as certain types of glass, plastics, rubbers and crushed ceramics can also be used. Where it is important to

maintain the initial colour we recommend that GeoPave UVR grade is used in conjunction with such materials. If considering using special materials, please consult Adbruf for further advice prior to use.

We supply aggregates that have been specifically selected for use in GeoPave UVR. You may choose to independently source aggregates elsewhere but when doing so, it is essential that they are dry and free from dust, silt, clay or any other foreign material, as these will seriously affect the ability of GeoPave resin to form a bond with the aggregate. It is also important to ensure that the aggregate grading is suitable for the installation.

Mix Designs

The ideal aggregate blends for use with GeoPave Standard resin are those of a yellow, buff or dark colour where the known darkening of the resin binder will have little visible effect. For other colours GeoPave UVR grade may be more appropriate.

The final strength of a resin bound aggregate surfacing system using GeoPave resin is determined by the choice of resin, aggregate (and its grading) and degree of compaction during installation. The installer must satisfy himself that the proposed mix is suitable for the intended use. A combination of two or more aggregate grades should be used to achieve a cohesive mix. Where greater strength is needed, a more graded mix using three or more aggregates may be necessary. If so, the percentage binder content may need to be higher to compensate for the increased surface area of the aggregate.

Adbruf offers a range of standard aggregate blends suitable for use with GeoPave UVR. Our aggregate range is periodically updated so please contact us for details of the blends that are currently offered.

Additional skid/slip resistance may be achieved by the light broadcasting of suitable grades of fine high PSV and AAV materials onto the surface of the resin bound aggregate paving system whilst it is still wet and before its initial set, these additional skid/slip resistant materials should be harmonious with the appearance of the aggregate in the GeoPave system.

Adbruf have a wide range of materials specifically for this purpose.

Application

The procedures set out in our separate GeoPave Method Statement should be followed carefully to ensure the correct application of GeoPave. Adbruf organise Product Familiarisation training days for trade customers on a regular basis. We recommend that resin bound paving systems using GeoPave are applied by experienced contractors.

Performance and Aftercare

The final resin bound aggregate surface requires minimal maintenance. To maintain the appearance of the surface, regular sweeping should be undertaken using a stiff brush to keep it clean and free from leaves, berries, general detritus and loose aggregate. Mechanical brushes using steel bristles must not be used. Where it is necessary to remove stains caused by oil spillages, domestic detergents or degreasers may be used with care. The use of cold pressure washing may be used to remove ingrained dirt etc, however close contact high pressure water jetting should be avoided.

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PRODUCT INFORMATION - GEOPAVE UVR

Whilst resin bound paving using GeoPave UVR resin is inherently flexible and resistant to deformation, it is important to ensure that the surfaces upon which it is laid are free from defects and faults and are capable of withstanding the effects of expected loadings during both summer and winter conditions.

Any spillage of fuel or solvents must be cleaned by the appropriate methods as soon as possible.

Packaging and Storage

Each pack consists of two components, comprising a base and an activator component in sealed containers. GeoPave UVR is currently supplied in a 6.5 kg pack size designed for a typical 100 kg aggregate blend, however the appropriate ratio of aggregate to resin binder that should be used will depend on the nature of the aggregate being used, its bulk density and surface area.

For Tree Pits, smaller packs are available which contain 4 kg of total resin binder.

Store all materials under cover in dry conditions. Do not allow extreme temperature fluctuations.

Shelf life is normally 12 months in the above storage conditions.

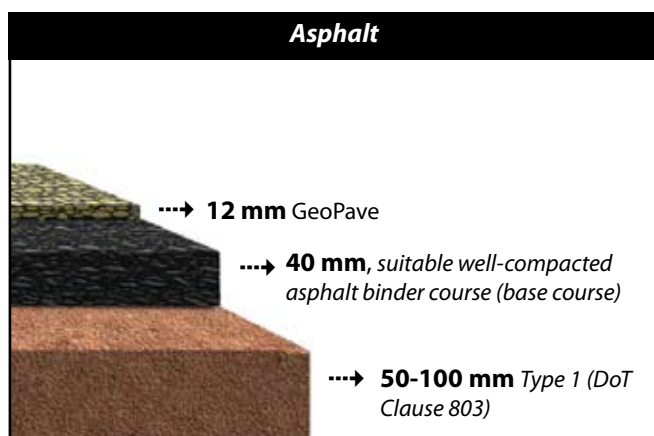
Important: Under no circumstances should damp aggregate be used.

Health & Safety

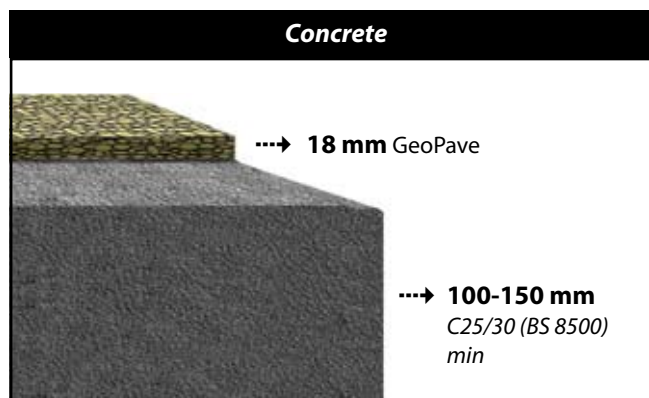
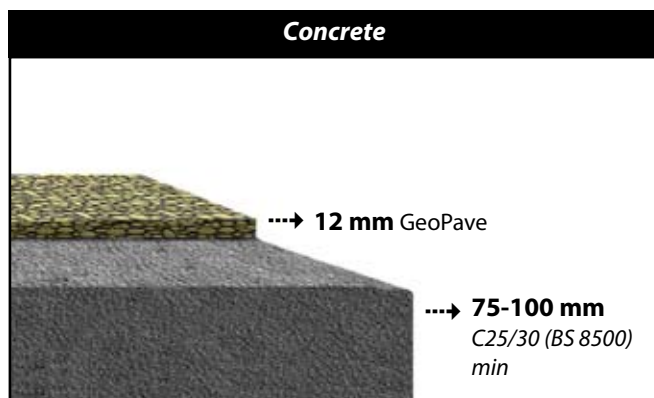
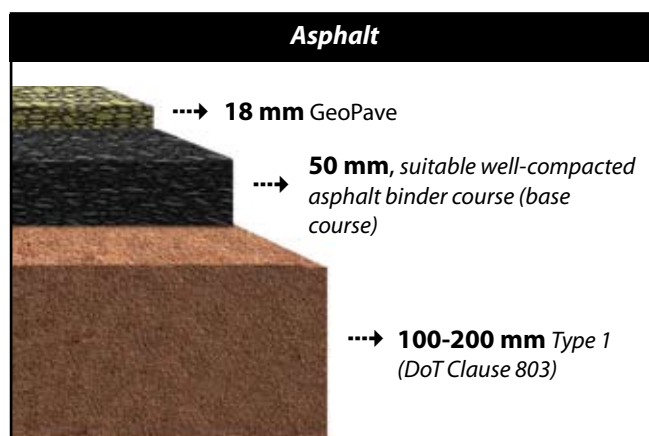
See separate Safety Data Sheet

Base Build-Up

Pedestrian



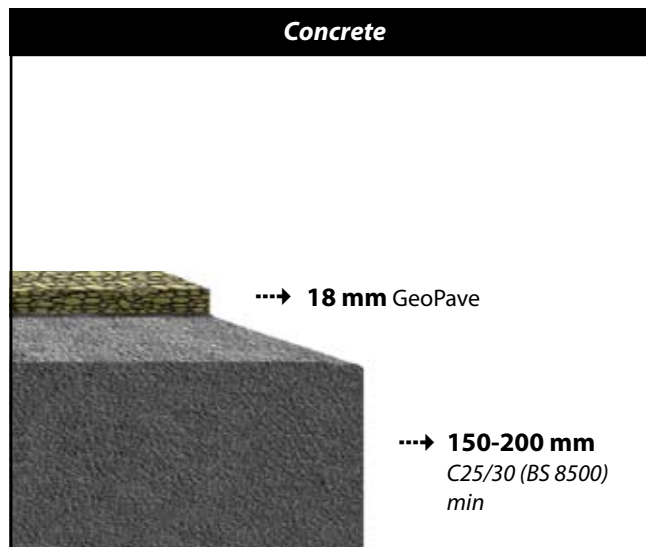
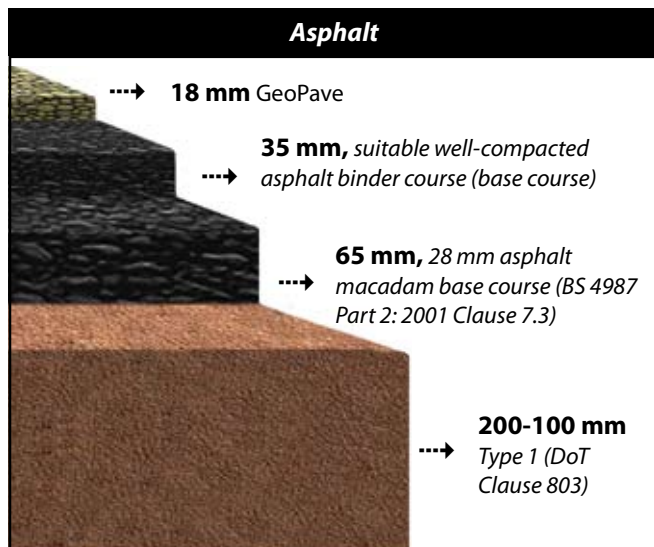
Domestic Driveway



PRODUCT INFORMATION - GEOPAVE UVR

Base Build-Up

Car Park Bay



Please note that any technical information or advice given by Adbruf Ltd is based on laboratory conditions/testing and practical experience. Application techniques and site conditions are beyond the control of Adbruf and we can therefore not be liable for any anomalies that may arise.

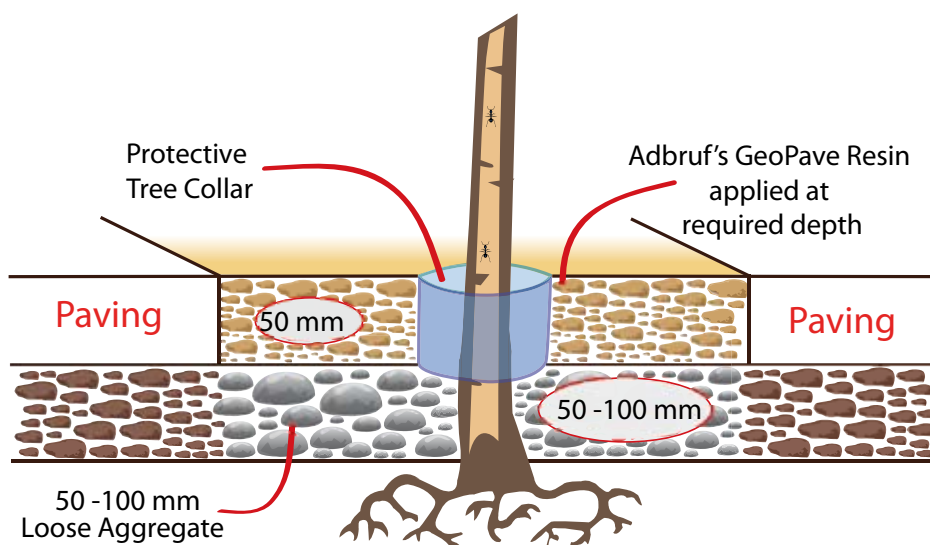
All base build-up details are intended as a guide only and the information stated does not constitute a specification.

Tree Pits

GeoPave UVR Tree Pit packs are designed to provide an attractive and aesthetically pleasing permeable paving system using a variety of natural or recycled aggregates.

The GeoPave UVR resin binder is mixed with a suitable natural or recycled aggregate with a typical grading of 6-10 mm, (certain coloured aggregates up to 25 mm have been used). The aggregate selected must be clean, free of fines and dry.

The open texture achieved when using the combination of GeoPave UVR resin and a suitable aggregate provides a highly permeable surface allowing surface water to drain away and yet still reach the roots.



Planting:

The tree should be planted and anchored in urban tree soil or similar.

Kerb edging and collar detail:

A suitable edging material and collar should be installed around the base of the tree and at the edges as required.

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GEOGLAZE

Clear Gloss Enhancer for Resin Paving

Description

GeoGlaze is a clear, resin based gloss enhancer for use on Adbruf's GeoPave and Adtex range of resin based paving systems when used outdoors. Formulated from high quality polyurethane, GeoGlaze keeps resin paving looking great.

Uses

When GeoGlaze is applied to the surface of resin bound aggregate paving based on Adbruf's GeoPave binder, it revitalises and preserves its glossy appearance. It can be applied to GeoPave bound systems in all external settings where high gloss, ease of cleaning and stain resistance is required.

GeoGlaze can also be applied to resin bonded aggregate paving based on Adbruf's Adtex binder. GeoGlaze gives Adtex bonded aggregate paving a glossy, wet look which strengthens the natural colour of the aggregate. It also seals the surface to aid cleaning and hinders the growth of vegetation.

Areas of Use

GeoGlaze can be used on all outdoor installations of resin paving using GeoPave or Adtex.

Benefits

- High gloss
- Makes cleaning easier
- Resists staining
- Single component
- Ready to use
- Applied by roller
- Fast drying
- Enhances surface strength
- Durable
- UV stable

Technical

Technical	
Density	1.0 - 1.1
Application Temperature (non-condensing conditions)	5°-35°C (surface)
Drying time (200µm)	3½-4 hours
Viscosity	50 - 1000 mPa.s
Flash Point	47 - 49 °C



A faint odour may be detected in the first few hours after application.

GeoGlaze has been designed for use with GeoPave and has not been tested for use on other materials.

Colours

Clear, colourless resin.

Surface Preparation

The GeoPave surface should be clean, dry and free from contaminants. Any stained areas should be spot cleaned with detergent and thoroughly rinsed and dried. If not removed, any dirt or staining remaining on the GeoPave will become encapsulated by the GeoGlaze for the lifetime of the surface. No primer is needed.

Product Application

Select a well ventilated location. No mixing is necessary. Using a 25mm nap nylon pile roller and a paint scuttle (tray), pour GeoGlaze into the tray, fully coat the roller and remove excess GeoGlaze liquid, then roll sparingly onto the GeoPave surface, building up until the required level of gloss is achieved.

Allow time to dry as per the Technical section, ensuring the glaze is no longer tacky.

GeoGlaze should be cleaned from tools before it dries using Adbruf Cleaning Solvent.

Aftercare

The sealed surface should be cleaned by wet mopping and a detergent solution. The gloss may be maintained by treating the surface with a proprietary strippable floor polish.

Packaging and Storage

GeoGlaze is supplied as a single component. The product weight is 5 kgs approx.

Shelf life is normally 12 months from the date of manufacture in the above storage conditions

Health & Safety

For full information see the separate Safety Data Sheet.

Avoid contact with skin. Wear protective clothing, gloves and eyewear.



Published September 2014

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GeoPrint - Pattern Imprinted Resin Bound Aggregate Surfacing

Product: *GeoPrint - GeoPave Standard - Adbruf's resin bound aggregate surfacing system with pattern imprinting*

Project: *Crosswalks at Florham Park, New Jersey*

Client: *Florham Park Borough - www.florhamparkboro.net*

Principal Contractor: *Falcon Striping and Surfacing, LLC - www.pspfalconindustries.com*

Distributor/Contractor: *Complete Streets USA, LLC - www.completestreetsusa.com*

Background

Florham Park is a borough in Morris County, New Jersey. It is the home of the NFL NY Jets main offices and training camp.

The borough had the task of installing new sidewalks, curbing, streetlights, streetlamps and paving. The final aspect of this landscape renovation to be addressed was the crosswalks.



Design Brief

Florham Park's borough engineer was keen to transform the crosswalks to be eye catching but functional pedestrian areas to compliment the existing stamped concrete paved areas within the sidewalks.

The borough engineer specified that the areas needed to be durable, in order to withstand oncoming traffic as well as pedestrian use. They wanted the surfacing to blend in with the natural surroundings but to look modern, attractive and add a contemporary feel to the area.

The specified surfacing material had to have a textured surface that could be used as a traffic calming measure, but that was low maintenance, easy to install and environmentally friendly.



Solution

Complete Streets USA and Jerry Gialanella provided the township engineer with the perfect option for a beautification project that is sustainable and durable.

Jerry recommended using Adbruf's GeoPave Standard resin with a blend of 1-2mm and 1-3mm red granite aggregate to compliment the sidewalks. Complete Streets USA also suggested installing a GeoPrint brick pattern to add both texture and to be consistent with the existing stamped concrete featured within the sidewalks.

Complete Streets USA were commissioned to install 2,300 square feet of GeoPave Printed Crosswalks at 5/8 inch thickness with an offset brick pattern. Complimenting the existing stamped concrete along the sidewalks, this was the solution preferred by the borough engineer.



Installation

Falcon Striping and Surfacing, LLC, trained by Complete Streets USA and supervised by Jerry Gialanella completed the installation process in 5 nights.

Complete Streets USA provides the highest quality surfacing materials from streets development to color demarcation for safe routes, bike paths and highway safety friction surfacing.

Existing asphalt was milled and removed in 6 foot widths from corner to corner at a 5/8 inch depth and then swept clean and torched with hot compressed air to remove oil and moisture.

A mixture of 1-2mm and 1-3mm red granite aggregate was used for the GeoPave mix.

Printing was achieved using an offset brick pattern template to give a "brick" effect.

GeoPave Standard is installed by mixing the two resin binder components until homogenous. A suitable mixer is then charged with the selected aggregate; the resin is added and mixed until the aggregate is fully coated. Finally, the mix is transported to the application area and then trowel applied. Prior to the system curing, the brick pattern was imprinted using a template mould. During this stage, great expertise was required to achieve the perfect finish.



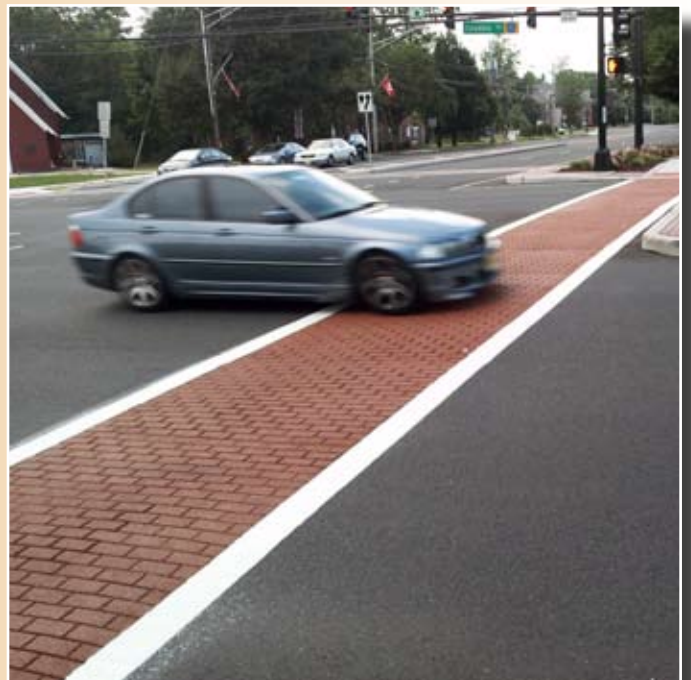
Product Details

GeoPrint is a new concept combining the beautiful appearance of resin bound surfacing using Adbruf GeoPave resins with modern imprinting techniques to give even more interest and texture to a surface.

GeoPrint is highly versatile because it can be applied in many different settings and because of the large variety of aggregate mixes that can be selected and patterns which can be imprinted. Imprinting leaves a continuous surface layer meaning that there are no joints for weed growth to become established.

Uses Include:

Access roads, driveways, landscape schemes, footpaths, patios, steps, flat roofs/balconies, tree pits, new developments and as part of a SUDS system.



Distributor/Contractor's Comments

Jerry Gialanella - Complete Streets USA, LLC

"GeoPrint Printed crosswalk installation is an overwhelming success; currently setting the standard in the USA for decorative and traffic calming"

STONEREZ HD

Clear Resin System for Bound Aggregate Paving

Description

StoneRez HD is a two-component high strength clear resin system formulated for use in resin bound aggregate paving systems. It offers market leading strength, flexibility and light stability. Aggregates bound in StoneRez HD show vastly improved clarity and an all-round sharper appearance compared with most other resin binder systems.

Resin bound aggregate surfacing systems combine durability and performance with a stunning appearance. Their use improves the appearance of all surfaces, can be used as part of Sustainable Drainage Systems (SuDS) and, combined with the wide range of colours and textures available from natural aggregates, manufactured aggregates and re-cycled aggregates, they give the specifier a wide range of attractive options in designing for the built environment.

Uses

StoneRez HD is manufactured for use as the binder component within a resin bound aggregate paving system.

Areas of use include driveways, heritage sites, estate roads, parking areas, footpaths, cycleways, courtyards, pathways, public parks, pedestrian precincts, office buildings, landscaping schemes, schools, walkways, tree pits, patio areas, conservatories, garden design, playgrounds, swimming pool surrounds, disabled areas, access ramps, roof terraces, balconies and many more.

Resin bound aggregate paving systems incorporating StoneRez HD as the binder are suitable for use as the surface (wearing) course on typically encountered load bearing substrates such as asphalt and concrete.

Benefits

- Highly attractive surfaces, easily maintained.
- Exceptional durability and flexibility.
- Suitable for use with a wide range of selected aggregate blends.
- High compressive strength.
- Resin bound aggregate surfacing systems are permeable and SuDS* compliant.
- No loose stones, restricts weed growth.
- Solvent free, so odour free before and after installation.
- Rapid curing and strength development.
- Non-yellowing.
- No catalyst required.

* Sustainable Drainage Systems



Technical

Curing Properties

Specific Gravity (SG) of mixed resin	1.06
Open Time @ 23°C (typical)	1 hour
Light Foot Traffic @ 23°C	4.5 hours
Light Vehicle Traffic @ 23°C	7 hours
Heavy Vehicle Traffic @ 23°C	Overnight

Spread Rate

Indicative spread rate of 100 kg of aggregate and one two component pack of StoneRez HD resin binder.	
Depth	Coverage per mix
12mm	5.0m ²
15mm	4.0m ²
18mm	3.3m ²
25mm	2.4m ²

Physical & Chemical Properties

Tensile Strength (ASTM D 412)	>14N/mm ² after 7 days
Elongation (ASTM D 412)	>30% after 7 days
Petrol resistance (ASTM D6943-10)	No damage to film
Fuel resistance (ASTM D6943-10)	No damage to film
Oil resistance (ASTM D6943-10)	No damage to film
Solvent resistance (ASTM D6943-10)	No damage to film
Hardness development (ASTM D2240)	Shore A meter reading >90 at full cure
Typical skid resistance of the full resin bound surfacing system (pendulum method)	>50 (dependent on aggregate)

A catalyst is not required for use with StoneRez HD; the nature of the polymers in the resin base ensures the rapid development of physical and chemical properties by themselves.

Compressive Strength

The compressive strength is the force required to induce a failure in a measured sample. When compared with a number of conventional resin binder systems in laboratory testing, the compressive strength of resin bound aggregate surfacing using StoneRez HD as its binder was found to be more four times that of all other conventional mixes tested.

Heat Ageing

Test samples of resin bound aggregate surfacing using StoneRez HD and a control underwent up to 84 cycles of heat ageing, each consisting of 8 hours in an oven at 60°C followed by overnight at ambient temperature. For any given number of test cycles, the change in colour of resin bound surfacing samples using StoneRez HD binder was a fraction of those where other conventional binders had been used, indicating StoneRez HD has outstanding colour durability following heat ageing. No breakdown of the StoneRez HD binder film was observed.

Weathering

Weathering tests undertaken using a specialist QUV Accelerated Weathering Tester machine clearly showed that, after 2500 hours, the change in colour of resin bound surfacing using StoneRez HD binder was significantly lower than those of other conventional resin binders and that StoneRez HD has outstanding colour durability characteristics.

Water Permeability

Resin bound aggregate paving using StoneRez HD as its binder typically has a high air voids content compared with most other

types of surfacing which makes it highly permeable to water. This allows rainwater to drain into the paving layer instead of running off its surface directly into surface water drainage systems.

SuDS

Sustainable Drainage Systems (SuDS) is a set of design principles for new surfacing schemes. SuDS covers surface water and drainage management measures and techniques designed to tackle the problem of rapid surface water runoff and 'flash' flooding following heavy rainfall, particularly in built-up areas. A full pavement constructed in accordance with SuDS will allow water to drain through the pavement layers directly into the soil beneath without it entering drains. Testing of 6 commonly used resin bound aggregate mixes as 12mm thick paving mix layers, using StoneRez HD as their binder, gave an average water permeability of 375L/m²/min. Because of this, StoneRez HD based resin bound aggregate paving qualifies as being SuDS compliant.

Typical resin bound aggregate surfacing systems using StoneRez HD binder are a favoured SuDS compliant solution because of their low binder and high void contents.

Colours

StoneRez HD binder supplied for resin bound aggregate surfacing has as a clear, water white colour. It is exceptionally resistant to discolouration after exposure to light and the effects of weathering.

Colours, shades and textures achievable from the finished system result from the correct combination of the aggregates and the resin binder system used. A blend of more than one aggregate type and/or size grading is typically chosen to provide the desired appearance, strength and cohesive matrix.

Aggregates

Specially selected grades of aggregates, for example, gravel, flint, quartz, granite, marble, calcined bauxite and many others, can be used as constituents of resin bound aggregate surfacing systems. From these materials, a wide range of colours and textures is achievable. Other special materials such as certain types of glass, plastics, rubbers, crushed ceramics and selected re-cycled materials can also be used in circumstances which require selected solutions. If considering using materials such as these, please consult Adbruf for further advice prior to use.

It is essential that aggregates used are clean, hard and durable and the presence of moisture, dust, silt, clay or any impurities will adversely affect the ability of any binder to form a bond with the aggregate. Adbruf supplies only kiln dried aggregates that have been specifically selected for use with StoneRez HD, and where the moisture content is typically less than 0.5% by weight.

Mix Designs

Standard Surfacing

Adbruf offers mixes chosen to provide a wide range of colours and textures. Because of its colour fastness, StoneRez HD is suitable for use with all these mixes.

Tree Pits

Resin bound aggregate surfacing systems incorporating StoneRez HD binder, provide the ideal solution to problems

associated with open tree pits and metal tree grilles such as litter, waste, trip hazards, weeds, dislodged loose aggregates and vandalism.

Resin bound tree pit surfacing systems using StoneRez HD binder are fully permeable and allow water to drain through to the roots of the tree without the need for watering tubes, at the same time providing an attractive surface which is level with its surroundings and which prevents the harbouring of litter and other detritus. It creates a hard wearing, natural finish that compliments any environmental improvement scheme.

Please visit our website to view a selection of illustrative mixes or contact us for more information.

Application

The procedures set out in our separate StoneRez HD Method Statement should be followed carefully to ensure the correct application of StoneRez HD.

We strongly recommend that resin bound aggregate surfacing systems using StoneRez HD are applied by experienced installers. Please call us for an installer near to you.

Performance and Aftercare

The final resin bound aggregate surface requires minimal maintenance. To maintain the appearance of the surface, regular sweeping should be undertaken using a stiff brush to keep it clean and free from leaves, berries, general detritus and loose materials. Mechanical brushes should not be used unless tests have been undertaken to ensure no damage to the surface occurs. Where it is necessary to remove unsightly staining caused by oil spillages or other contamination, the careful use of domestic detergents or degreasers may be used. However we recommend you test a small area first before use. The use of cold or warm pressure washing may be used to remove ingrained dirt etc, however close contact of high pressure, hot water jetting or steam cleaning should be avoided.

Whilst resin bound paving using StoneRez HD resin is inherently flexible and resistant to deformation, it is important to ensure that the surfaces upon which it is laid are free from defects and faults and are capable of withstanding the effects of expected loadings during both summer and winter conditions.

Although StoneRez HD is resistant to damage from fuel and oil spills, we would still advise that any spillage of fuel or solvents must be cleaned by the appropriate methods as soon as possible.

Packaging and Storage

Each pack consists of two components, comprising a base and an activator component in sealed containers. Normally, the activator component should be poured into the base component whilst mixing and the packaging size allows for this.

Store all materials under cover in dry conditions. Do not allow extreme temperature fluctuations.

Shelf life is normally 6 months in the above storage conditions.

Health and Safety

See separate Safety Data sheet.

Published November 2014



**LOOK OUT
FOR
OUR**



STONEREZ HD

Clear Resin System for Bound Aggregate Paving



ADBRUF 



StoneRez HD is a two-component, high strength, clear resin system which, when mixed with selected blended aggregates, placed and trowel finished on site, forms a complete resin bound aggregate paving system.

The strength, colour stability and chemical resistance of StoneRezHD make it the perfect choice for use in paving on patios, footpaths, swimming pool surrounds and other areas where strong visual appeal and technical performance is important. Its permeability means that it is ideal for pool surrounds because standing water is eliminated and its smooth finish makes it kind to bare feet.

Aggregates bound with StoneRez HD are clear and bright and remain so after exposure to strong heat and sunlight. The range of colours and textures available from Adbruf's range of natural and manufactured aggregates offers many attractive options for complementing or contrasting with the surrounding environment. Designs incorporating patterns and shapes can be created using contrasting aggregate blends.



Features & Benefits

- Luxuriously elegant
- Gentle & safe underfoot
- Beautiful colours, shades & textures
- Free draining - no ponding
- Clear, high performance resin binder
- Highly UV resistant
- High compressive strength
- Exceptionally durable
- Flexible
- Suitable for all climates
- Chlorine resistant

StoneRez HD is suitable for use for driveways, estate roads, car parks, footpaths, courtyards, patios, swimming pool surrounds, tree pits and for many other areas in private, public and commercial spaces.

What to do next

Either:

- Call us on +44 (0) 1963 362640.
- Email us on sales@adbruf.com for UK & Ireland sales or export@adbruf.com for all other sales.
- Visit our website at www.adbruf.com where you can browse our full product range in detail and obtain further information on all our products.



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