

## PRODUCT INFORMATION

# EcoBound UVR

## Resin System for Bound Aggregate Paving

### Description

**EcoBound 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

EcoBound 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.

EcoBound 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
<b>Spread Rate (approx. per 100 kg of typical aggregate, assuming bulk density of 1.67)</b>	
12 mm	4.99 m <sup>2</sup>
18 mm	3.32 m <sup>2</sup>
25 mm	2.39 m <sup>2</sup>

*\* Typical value: catalyst should normally be used with EcoBound 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 EcoBound UVR and details of its addition are set out in our EcoBound 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.

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

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



## Tree Pits

EcoBound 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.

EcoBound 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

EcoBound 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 EcoBound 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 EcoBound 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 EcoBound 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 EcoBound 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 EcoBound UVR grade may be more appropriate.

The final strength of a resin bound aggregate surfacing system using EcoBound 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.

Below are a few examples of the aggregate blends that we currently stock in our standard range. Our aggregate range is continually being updated – please contact us for details of currently available aggregates or visit our website ([www.adbruf.com](http://www.adbruf.com)) for the latest blends.

All aggregate blends listed for EcoBound Standard are suitable for EcoBound UVR plus the following lighter coloured blends:



Rustic Gold



Sterling Silver



Maize



Caramel

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 EcoBound system.

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



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