RonaDeck
RESIN BOUND & BONDED SURFACING

RonaDeck EcoPath UV

Aggregate and recycled rubber resin bound surfacing system

FEATURES

- **SuDS compliant—highly permeable paving**
- **UV stable resin will not discolour**
- **Natural aggregates**
- **Uses rubber granules recycled from truck tyres**
- **Alternative to conventional paving**
- **Flexible**
- **Installed by approved contractors**
- **Low maintenance**

Description

RonaDeck EcoPath UV is a resin bound aggregate surfacing system for pedestrian traffic. RonaDeck EcoPath UV surfaces are decorative and functional, seamless and slightly flexible. The open matrix allows water to drain through to the base, eliminating water ponding and allowing water to drain to planted areas or land drains. The system is designed to be SuDS compliant reducing the impact of development on flood risk and allowing water to flow into water courses. Edgings created from brick, stone, timber or steel should be installed to retain and protect the resin bound surfacing.

RonaDeck EcoPath UV comprises RonaDeck EcoPath UV Resin, a two component UV stable polyurethane resin which binds aggregate and recycled vulcanised rubber granules. RonaDeck EcoPath UV provides an attractive surface, is strong enough for foot traffic, and is highly porous. RonaDeck EcoPath UV is typically applied to compacted Type 3 aggregate to provide a thin alternative to asphalt or concrete. RonaDeck EcoPath UV is designed for light foot traffic only. It is not designed for road surfacing, drives or car parks.

Mix Design

RonaDeck EcoPath UV Resin	**1 x 7kg**
RonaDeck EcoPath UV Aggregate	**3 x 25kg**
RonaDeck EcoPath UV Rubber Granules	**1 x 15kg**
RonaDeck Fine Aggregate	**1 x 6.25kg**
Coverage @ 35mm	**2.4m² (approximately)**

Resin and Aggregate

RonaDeck EcoPath UV Resin has been designed for the UK market. Under normal UK weather conditions the system is considered UV light and heat resistant and will not discolour. If exposed to weather beyond those of typical UK conditions, slight discolouration may occur.

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Resin and Aggregate (continued)

The performance and appearance of the finished surface is dependent on the aggregate and rubber used. The RonaDeck EcoPath aggregates and rubber have been selected to achieve strength, resilience, porosity and decoration.

Natural aggregates may contain small amounts of iron which can produce rust staining when exposed to air and water; standard RonaDeck EcoPath UV blends contain aggregates selected for infrequency of incidence of staining but iron may be present in any natural aggregate. The presence of iron cannot be identified before use and Ronacrete Ltd cannot accept responsibility for any loss or damage suffered as a result of staining.

Appearance

The appearance of samples and of materials supplied by Ronacrete are based on the colour, shade and grading of individual aggregates supplied to Ronacrete by its suppliers. Being largely natural aggregates, the appearance will vary from bag to bag and batch to batch, a uniform appearance should not be expected and cannot be achieved.

Maintenance

It is possible to repair localised damage by cutting out and replacing, ideally using the same aggregate as originally supplied. Ageing and weathering of the original may prevent an invisible repair. “Picking out” of some stones is possible but is likely to be minimal and localised. Any major loss of stone should be reported.

Blooming

Blooming occurs, largely in late Autumn, Winter and early Spring, when conditions for application of resins are not ideal. Polyurethane resins may harden quickly but even at 20°C, initial cure does not occur until 24 hours have elapsed and initial cure takes longer at lower temperatures. Initial cure time is important because until it is achieved, the resin remains open to absorption of water. On dry days with air temperatures in excess of 10°C, conditions may seem benign but such conditions can produce blooming. Condensation occurs when the dew point is close to the air temperature and whenever the dew point rises to within 3 degrees of air temperature, condensation will occur. Application of resins during these adverse conditions, or for 2 days following application if conditions remain similar or worsen, runs the risk of blooming caused by dew forming on the resin surface or fog condensing on the surface.

Rain During Application

Application during rain or before rain is not recommended. Light rain on the surface affect the bond between particles, reducing the strength of the system. Unmixed aggregate must be kept dry at all times. Care must be taken to keep the mixing station dry, thus avoiding entrapment of moisture between aggregate and resin. Do not apply RonaDeck EcoPath UV when rain is expected within 24 hours of application at 20°C. Do not apply RonaDeck EcoPath UV when fog, frost or dew is expected within 48 hours of application.

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Suggested Construction SuDS Compliant Permeable Construction for Footpaths

RonaDeck EcoPath UV System is designed for light foot traffic only, a suggested form of paving construction follows.

EcoPath UV Surfacing
35mm minimum depth of RonaDeck EcoPath UV vulcanised rubber granules and natural aggregate bound with RonaDeck EcoPath UV Resin.

Granular Sub-base
100mm minimum well compacted Type 3 granular sub-base or similar approved

Optional Impermeable Membrane
Impermeable membrane to carry water to infiltration/ storage system/ soakaway

Or

Geotextile Layer
Geotextile layer to prevent upward migration of soil

Capping Layer
If required, depending on sub-grade condition
Sub-grade

The above information is produced for guidance only, the designer/ contractor should be satisfied that the construction is suitable for the expected traffic and ground conditions.

Working Times and Temperatures

Winter Grade (5ºC-15ºC)

Ambient Temperature	5°C	10°C	15°C
Working Time	40-60 minutes	30-45 minutes	20-30 minutes
Lay before rain	3-4 hours	2-3 hours	1-2 hours
Pedestrian traffic after	12-14 hours	7-9 hours	5-7 hours

Summer Grade (15ºC-25ºC)

Ambient Temperature	15°C	20°C	25°C
Working Time	50-60 minutes	40-55 minutes	35-50 minutes
Lay before rain	6-8 hours	4-5 hours	3-4 hours
Pedestrian traffic after	24 hours	13-14 hours	9-12 hours

High Summer Grade (25ºC-40ºC)

Ambient Temperature	25°C	30°C	40°C
Working Time	55-90 minutes	45-75 minutes	30-45 minutes
Lay before rain	5-6 hours	4-5 hours	2-4 hours
Pedestrian traffic after	24 hours	14-16 hours	7-8 hours

Site conditions will affect the times quoted. All data is provided as a guide only.

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Working Times and Temperatures (continued)

Working time is affected by temperature; at temperatures above the maximum recommended in the following tables, the pot life and working time may be insufficient to allow a wet edge to be maintained. Work should therefore not proceed when product and / or air temperature exceeds recommendations. The air temperature must therefore be monitored during application and work should stop when temperature exceeds recommendations. Care must be taken to keep materials as cool as possible in warm weather. At low temperatures RonaDeck Resin will not flow sufficiently to achieve a smooth finish and work should not proceed when air, material or substrate temperature is below 5^{o}C.

Instructions for Use

Mixing

1. Ensure the forced action mixer is thoroughly cleaned immediately before works proceed as dirt/residue on the drum and mixing blade surfaces may contaminate the initial mixes. This contamination will affect the colour of the initial mixes, which will be noticeable when subsequent batches of material are laid.
2. Place 90kg of RonaDeck EcoPath UV rubber granules and kiln-dried aggregate into a clean, dry, forced action mixer minimum capacity/ power 120 litres/ 1.8kW, Baron F200 mixer or similar. The mixer is to be switched on prior to loading with aggregate and rubber.
3. Scrape all of the contents of RonaDeck EcoPath UV Resin B component into the larger A component container and mix with a slow speed drill (≤450RPM) and MR2 paddle mixer attachment until homogeneous.
4. Immediately add the mixed resin to the aggregate in the mixer followed by RonaDeck Fine Aggregate (6.25kg) approximately 30 seconds later. Mix the aggregate, rubber and resin together until all the aggregate and rubber is evenly coated with resin. Mix for approximately 1-2 minutes. Overmixing will increase heat generation, reduce working time and may affect the colour. **Inconsistent mixing times may cause colour variation, ensure all batches are mixed for the same length of time.**

Application

1. Discharge the mixed resin and aggregate into a suitable wheelbarrow and immediately move to the point of application
2. Discharge the wheelbarrow onto the prepared surface and spread evenly using a straight bladed squeegee or spazzle to the required thickness and level.
3. The surface is then to be hand trowelled with a suitable float to leave a smooth compacted finish. Excessive compaction will reduce permeability and over trowelling may result in ‘trowel burn’.
4. RonaDeck Low VOC Tool Cleaner/ Trowel Finishing Aid should be used if required, the use of white spirit is not advised.
5. For improved slip-resistance on steep gradients, apply 0.2-0.6mm clear glass grit to the wet resin at the rate of approximately 50-80g/m^2, avoid a patchy appearance by scattering evenly.
6. Always ensure that a wet edge is maintained, joints between mixes will be visible unless the older mix is still workable.

Curing

Allow to cure and open to traffic as described in **“Working Times and Temperatures”.**

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Instructions for Use (continued)

Cleaning Tools
Tools and equipment may be cleaned with RonaDeck Low VOC Tool Cleaner/ Trowel Finishing Aid, which will remove uncured resin.

Shelf Life and Storage

Shelf life of RonaDeck EcoPath UV is 6 months, aggregates and rubber have an unlimited shelf life. Store materials in clean, dry, frost free warehouse conditions between 5°C and 25°C. Protect from sunlight.

Health and Safety

Refer to Safety Data Sheet.

Site Attendance

When on site Ronacrete representatives are able, if asked, to give a general indication of the correct method of installing a Ronacrete product. It is important to bear in mind that Ronacrete Ltd is a manufacturer and not an application contractor and it is therefore the responsibility of the contractor and his employer to ensure he is aware of and implements the correct practices and procedures to ensure the correct installation of the product and that liability for its correct installation lies with the contractor and not with Ronacrete Ltd.

Ronacrete
WORLD CLASS MANUFACTURER
Ronac House, Flex Meadow, Harlow, Essex CM19 5TD, U.K.
Tel: +44 (0)1279 638700 www.ronacrete.co.uk technical@ronacrete.co.uk