RonaDeck
RESIN BOUND & BONDED SURFACING

RonaDeck Eco Tree Pit

Resin bound porous tree pit system

FEATURES

- **SuDS compliant—highly permeable**
- **UV stable—non yellowing resin**
- **natural aggregate appearance**
- **alternative to tree grilles**
- **recycled aggregates available**
- **installed by approved contractors**
- **design can accommodate some tree growth**
- **attractive; complements the surrounding area**
- **design accommodates tree growth**
- **low maintenance**
- **variety of colours - see separate colour chart**

Description

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RonaDeck Eco Tree Pit is a resin bound natural aggregate finish surround for planted trees in public and private areas. Surrounding the tree in a solid yet semiflexible construction allows the tree to grow. Prevents a build up of litter and reduces trip hazards which are common with traditional metal tree grill systems.

The RonaDeck Eco Tree Pit comprises a two component UV stable polyurethane resin and a range of selected attractive aggregates. The design of this resin bound aggregate system provides a surface which is attractive, highly porous and able to receive light foot traffic.

Application thickness

Minimum thickness	**40mm**

Mix Design

RonaDeck Eco Tree Pit Resin	**6kg**
RonaDeck Eco Tree Pit Aggregate	**100kg**
RonaDeck Fine Aggregate	**6.25kg**
Coverage	**1.65m² @ 40mm**

Resin and Aggregate

RonaDeck Eco Tree Pit 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.

The performance and appearance of the finished surface is dependent on the aggregate used. RonaDeck Eco Tree Pit aggregates have been designed to achieve strength, resilience, porosity and decoration.

Some aggregates can contain small amounts of iron which can produce rust staining. This naturally occurring iron cannot be identified before use and Ronacrete cannot accept any responsibility for any loss or damage suffered as a result of staining.

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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.

Slip Resistance

RonaDeck Eco Tree Pit has been tested for slip resistance in accordance with BS 8204-6:2008+A1:2010 Appendix B. Slip Resistance Values can be found on the colour swatch document. Application of 0.2-0.6mm clear glass grit to the wet resin will significantly increase the slip resistance of the surface in the wet.

Working Times and Temperatures

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. Work should not proceed when air, material or substrate temperature is below 5°C.

Winter Grade (5°C-15°C)

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 (15°C-25°C)

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 (25°C-40°C)

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.

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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 Eco Tree Pit when rain is expected within 24 hours of application at 20°C. Do not apply RonaDeck Eco Tree Pit when fog, frost or dew is expected within 48 hours of application.

Instructions for Use

Base

1. Only use clean, kiln-dried, well graded aggregates which are suitable for this use.
2. The mixing station must be dry, to avoid entrapment of moisture in the aggregate. Even a small amount of moisture in the aggregate will cause foaming of the resin. Do not apply during rainfall or when rain is expected during the initial curing period.
3. Soil is to be well compacted and above the level of the root ball.
4. Lay minimum 100mm depth of 20mm loose shingle or MOT Type 3 aggregate and compact. Form a rising funnel of aggregate around the tree trunk. Allow for a minimum 40mm thickness of RonaDeck Eco Tree Pit to the compacted aggregate.
5. Where required, form a solid perimeter using timber, kerbing, blocks or similar to create a permanent and secure edging for the loose gravel base and the RonaDeck Eco Tree Pit.

Mixing

6. 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.
7. Place RonaDeck Eco Tree Pit Aggregate into a clean, dry, forced action mixer. When using 6kg resin packs, it is important to mix all the resin with the required amount of aggregate (107kg), this will require a forced action mixer of at least 120 litre capacity, Baron F200 or similar.
8. Scrape all of the contents of RonaDeck Eco Tree Pit B component into the larger A component container and mix with a slow speed drill (≤450RPM) and MR2 paddle mixer attachment until homogeneous.
9. 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 and resin together until all the aggregate 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

10. Discharge the mixed resin and aggregate into a suitable wheelbarrow and immediately move to the point of application
11. Discharge the wheelbarrow onto the prepared surface and spread evenly using a straight bladed squeegee or spazzle to the required thickness and level.
12. 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’.

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Instructions for Use (continued)

13. RonaDeck Low VOC Tool Cleaner/ Trowel Finishing Aid should be used if required, the use of white spirit is not advised.
14. For improved slip-resistance, 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.
15. 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".**

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 Eco Tree Pit Resin is 6 months, aggregates have an unlimited shelf life when kept in warm, dry, well ventilated conditions. Store all materials in clean, dry, frost free warehouse conditions between 10°C and 25°C. Protect from sunlight.

Health and Safety

Refer to Safety Data Sheet.

Site Attendance

When on site Ronacrete Limited representatives are able, if asked, to give a general indication of the correct method of installing a Ronacrete Limited product. It is important to bear in mind that Ronacrete Limited 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 Limited.

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