

RonaDeck Resin Bonded Surfacing

Rapid cure decorative slip resistant safety surfacing and landscaping



FEATURES

- rapid cure resin
- can be trafficked after 4 hours
- high slip resistance
- DDA compliant
- self priming on asphalt and concrete
- highly decorative
- suitable for pedestrian and vehicular traffic
- available in a wide range of colours

Description

RonaDeck Resin Bonded Surfacing is a resin bonded aggregate surfacing system for paths, car parks, drives, ramps, highways etc. RonaDeck Resin Bonded Surfacing produces a surface with the appearance of natural aggregate or stone but with aggregate which is firmly bonded to the surface.

It is designed for use on concrete, asphalt, steel and timber surfaces which require the application of a resin bonded aggregate, to provide some or all of the following:

- Decoration
- High friction surfacing
- Colour coding
- Compliance with Disability Discrimination Act
- Minimal maintenance
- An alternative to loose aggregate and stone surfacing

RonaDeck Resin Bonded Surfacing provides surfaces for all types of traffic from paths to busy highways and provides excellent traction in wet and dry conditions.

It has good adhesion to suitably prepared substrates, high abrasion and slip resistance values. Coloured or contrasting aggregates provide clear markings for safety and hazard areas. Natural aggregates are ideal for landscaping, driveways, paths, garden areas, car parks.

Uses

- Landscaping, gardens, driveways, footpaths
- Slip resistant surfacing on platforms, footbridges
- Balconies, common walkways
- Steps, car parks and ramps
- Marinas, jetties, sea walls, pond and lake surrounds
- Approaches to pedestrian crossings, junctions and other hazards

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Technical Data	Hardness	>90 Shore A
	Elongation	10%
	Tensile Strength	≥16N/mm²
	Adhesive Strength	>1.5N/mm²

Coverage Rates (medium grade aggregate)	RonaDeck Resin Bonded GP Primer	6-8m² per litre
	RonaDeck Resin Bonded Steel Primer	9-10m² per litre
	RonaDeck Resin Bound Surfacing Resin	1.0kg per m²
	RonaDeck Resin Bonded Aggregate	7kg per m²
	RonaDeck Resin Bonded Seal Coat (1st coat)	3m² per litre
	RonaDeck Resin Bonded Seal Coat (2nd coat)	5m² per litre

Coverage Rates (coarse grade aggregate)	RonaDeck Resin Bonded GP Primer	6-8m² per litre
	RonaDeck Resin Bonded Steel Primer	9-10m² per litre
	RonaDeck Resin Bound Surfacing Resin	1.5kg per m²
	RonaDeck Resin Bonded Aggregate	8kg per m²
	RonaDeck Resin Bonded Seal Coat (1st coat)	3.8m² per litre
	RonaDeck Resin Bonded Seal Coat (2nd coat)	4m² per litre

Note that coverage rates quoted are theoretical and based on application onto smooth non-porous surfaces; actual coverage rates can be assessed only by practical trials on representative areas of the structure and these are recommended in all situations, especially where surfaces are rough texture and / or porous.

Substrate Suitability

- Only apply to a suitable substrate. The best substrate is a well designed and constructed concrete, shot blasted to remove laitance.
- RonaDeck Resin Bound Surfacing must be installed on to a dry surface.
- RonaDeck Resin Bonded Surfacing can also be applied to suitably designed and constructed asphalt or asphalt concrete (macadam). The bitumen binder should be maximum 90 pen, 40/60 pen is preferred. The contractor should be satisfied that the substrate is adequately compacted. Older asphalt or asphalt concrete may be too weak for application of resin bonded surfacing.
- New asphalt or asphalt concrete should be at least 2-3 weeks old before application of RonaDeck Resin Bonded Surfacing.
- RonaDeck Resin Bonded Surfacing can be applied to dimensionally stable timber and metal surfaces which are clean, unpainted, untreated with oils or paints or other adhesion-limiting treatments.
- Only apply RonaDeck Resin Bonded Surfacing to substrates which have adequate tensile strength.
- Application to any other surface is likely to result in early failure.
- If you are unsure of the suitability of a substrate for application of RonaDeck Resin Bonded Surfacing, do not proceed.
- RonaDeck Resin Bonded Surfacing is a thin layer of 1mm to 4mm (approximately) depending on the system. It will therefore reflect any substrate imperfections. Uneven substrates should therefore be levelled before application of RonaDeck Resin Bonded Surfacing to avoid uneven wear and unacceptable appearance.

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Contractors

RonaDeck Resin Bonded Surfacing is a specialist product and must only be applied by specialist applicators.

Do not apply or allow RonaDeck Resin Bonded Surfacing to be applied by contractors who do not possess the necessary skills and experience.

Temperature and Humidity

- RonaDeck Resin Bonded Surfacing is a rapid setting and rapid curing product and working time will be restricted at high temperature.
- Do not apply RonaDeck Resin Bonded Surfacing when air or substrate temperature exceeds 35°C.
- At low temperatures the resin will not flow sufficiently to achieve a smooth finish and work should not proceed when the temperature is less than 5°C.
- Do not apply RonaDeck Resin Bonded Surfacing when relative humidity is greater than 80%.
- Do not apply RonaDeck Resin Bonded Surfacing when surface temperature is less than 2°C above the dew point.

Appearance and Expectations

Because of the random size, grading and colour of the aggregate and the way it is cast, it is inevitable that the appearance and density of aggregate will vary across the surface. It is likely that in some areas there will be patches where more resin is visible. Careful installation will reduce the variability but a uniform surface with no visible resin should not be expected.

Some unbonded or partially bonded aggregate will be temporarily locked into other aggregate. Shortly after installation and perhaps for several weeks or months, aggregate will be shed from the surface and must be removed to prevent further aggregate loss. Loose stones are therefore to be expected and may be carried into buildings and vehicles on the soles of shoes. A combination of mechanical sweeping and vacuum removal is the best method for early removal of aggregate.

Landscaping

RonaDeck Resin Bonded Surfacing is an alternative to loose stone and gravel paths, driveways, pond and lake surrounds. Loose gravel can be untidy, creating mess, unnecessary dust and introducing a slip or trip hazard. RonaDeck Resin Bonded Surfacing bonds natural aggregate securely to suitable surfaces creating a gravel or stone appearance but without the associated mess and inconvenience.

Instructions for Use

Concrete should have a maximum relative humidity of 75% before RonaDeck Resin Bonded Surfacing is applied. Allow asphalt or asphalt concrete (macadam) to cure for at least 2-3 weeks, to ensure that free volatiles have evaporated.

RonaDeck Resin Bonded Surfacing is not suitable for application to asphalt or asphalt concrete containing softer grades of bitumen. The bitumen binder must

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Instructions for Use (continued)

have a pen value no greater than 90 and preferably 40/60, when tested in accordance with EN 1426 Needle Penetration Test. Bituminous materials with a higher pen value will be too soft and may deform in warm weather, especially under loading from wheels etc. Older asphalts and macadam will be weaker and should be expected to crack when overlaid with a resin bonded surfacing.

Clean the concrete and prepare by shot blasting or other approved means to produce a lightly textured surface that is free from laitance. Ensure that the concrete surface is dry and free from contamination and loose or friable materials.

Asphalt or asphalt concrete must be dry and free from contamination and loose or friable materials.

Prepare steel by thorough degreasing and by shot blasting to SA 2.5. The steel must be dry and free from loose shot.

Timber must be dry and free from contamination.

Uneven concrete surfaces may be treated with RonaDeck Resin Bonded Pore Filler to fill minor surface irregularities. RonaDeck Resin Bonded Pore Filler should be scraped across the concrete surface with the edge of a trowel ensuring that the product only fills voids. RonaDeck Resin Bonded Pore Filler must not be used as a thin screed. Refer to the separate data sheet.

Surface irregularities in asphalt/ asphalt concrete may be filled by mixing RonaDeck Resin Bonded Surfacing resin with suitable kiln dried aggregate to produce a scratch coat, which should be scraped across the surface with the edge of a trowel.

Protect all kerbs, ironwork etc from spillage/overflow of resin, preferably using duct tape to seal and use duct tape at termination points. Consider permanent protection of arrises and expansion joints with steel angles or nosings.

Priming of asphalt and good quality concrete is not required. Timber and high porosity concrete surfaces must be primed with RonaDeck Resin Bonded GP Primer.

Prime timber/ high porosity concrete with RonaDeck Resin Bonded GP Primer at the rate of 6-8m²/ litre and allow solvent evaporation before application of RonaDeck Resin Bonded Surfacing. If the primer remains uncovered for longer than 12 hours, a second application of primer will be required.

Prime steel with RonaDeck Resin Bonded Steel Primer. Prime at the rate of 9-10m²/ litre and allow solvent evaporation before application of RonaDeck Resin Bonded Surfacing. If the primer remains uncovered for longer than 23 hours, a second application of primer will be required.

Mix RonaDeck Resin Bonded Surfacing with a slow speed drill and spiral paddle, until the components are blended and the mix is free from streaks; immediately pour the mixed material onto the substrate, to prevent heating in the mixing vessel and to extend workable life.

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Instructions for Use (continued)

Spread the resin with a notched squeegee or roller at the rate of 1.5kg/m² for application of 1-3mm aggregate or 1kg/ m² for 0.9-1.4mm aggregate. Maximum application temperature is 35°C. Maximum air humidity is 80%.

Fully blind the RonaDeck Resin Bonded Surfacing with 1-3mm RonaDeck Resin Bonded Surfacing Aggregate at the rate of 8kg/m² minimum, or with 0.9-1.4mm aggregate at the rate of 7kg/m² minimum. This must be done immediately after application of the resin, while the resin is still fluid. Remove all duct tape/protection before the resin gels.

Allow the RonaDeck Resin Bonded Surfacing to cure, typically 2 hours at 20°C. Excess aggregate may then be removed by sweeping or vacuuming, this aggregate may then be re-used if it is dry and clean. It may require several cycles of sweeping or vacuuming to fully remove loose aggregate. Typical traffic time at 20°C is 4 hours.

Optionally, apply RonaDeck Resin Bonded Seal Coat / RonaDeck Resin Bonded Seal Coat UV to improve aggregate retention and aid cleaning. One or two coats should be applied. Apply by roller at the rate of 3m² per litre for the first coat and 5m² per litre for the second coat on 1-3mm aggregate, or 3.8m² per litre for the first coat and 4m² per litre for the second coat on 0.9-1.4mm aggregate. Refer to separate data sheet for further information.

Do not apply RonaDeck Resin Bonded Surfacing or RonaDeck Resin Bonded Seal Coat if rain, fog, or high humidity is expected within its cure time or if the resin or aggregate has become damp.

Properties

RonaDeck Resin Bonded Surfacing has excellent fuel and chemical resistance. Applied correctly the tensile bond strength of RonaDeck Resin Bonded Surfacing is greater than the cohesive strength of the concrete, or other suitable substrate.

Aggregate Selection

RonaDeck Resin Bonded Surfacing Aggregates have been chosen for their suitability for individual applications. Some aggregates such as Sepia are suitable for light traffic while others such as bauxite provide high polished stone values, wear resistance and skid resistance. Some aggregates are inherently weak and will therefore have been excluded from our selection. 1-3mm bauxite is the ideal aggregate for vehicle traffic. 0.9-1.4mm bauxite is suitable for pedestrian use.

Aggregate Colour and Shading

The sourcing and processing of the natural and pigmented aggregates supplied with RonaDeck Resin Bonded Surfacing cannot eliminate variability in their colour, shading and grading even though strict quality control measures are in place. We are therefore unable to guarantee that aggregates will be free from such variation and cannot accept any liability for any variation. Note that coloured aggregates are colour coated and will fade under UV light.

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Wear Resistance and Durability

Dependent on the system specified, the condition and performance of the substrate, the aggregate selected and the use of RonaDeck Resin Bonded Surfacing Seal Coat, applications can be expected to last up to 10 years when properly inspected and maintained. Performance is dependent on many factors, especially the aggregate, and it is recommended that only aggregates supplied by Ronacrete are used. Ronacrete are able to supply aggregates which may not be shown on charts or the standard price list and advice should be sought from the Ronacrete Technical Department.

Cleaning

A Xylene based solvent should be used for cleaning tools etc.

Shelf Life and Storage

Store unopened in dry warehouse conditions away from frost and direct heat or sunlight in the temperature range 5°C – 25°C. Shelf life of unopened containers— RonaDeck Resin Bonded Surfacing resin 12 months, RonaDeck Resin Bonded Pore Filler 9 months, RonaDeck Resin Bonded Seal Coat 6 months, RonaDeck Resin Bonded GP Primer 12 months and RonaDeck Resin Bonded Steel Primer 24 months.

Health and Safety

It is recommended that goggles, gloves, overalls and barrier cream are worn when working with RonaDeck Resin Bonded Surfacing. Provide adequate ventilation, including appropriate local extraction to ensure that the defined occupational exposure limit is not exceeded. The efficiency of the ventilation must be monitored regularly because of the possibility of blockage. Keep stocks of decontaminant readily available. For full details, please refer to the appropriate Health and 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.

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Natural Aggregates



Autumn Gold 1-3mm



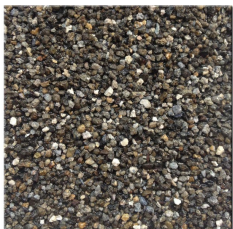
Chinese Bauxite 0.5-1.4mm



Chinese Bauxite 1-3mm



Guyanan Bauxite 0.5-1.4mm



Guyanan Bauxite 1-3mm



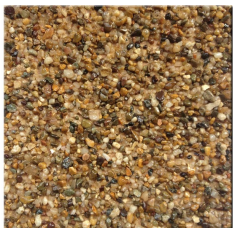
Multi Flint 0.9-1.4mm



Multi Flint 1-3mm



Red Granite 1-3mm



Rounded Sepia 1-3mm



Silver Granite 1-3mm

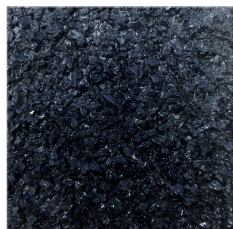


Terracotta 0.9-1.4mm

Pigmented Aggregates



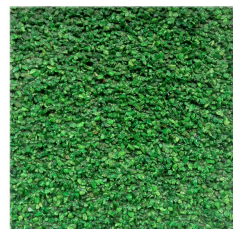
Black 0.9-1.4mm



Black 1-3mm



Blue 0.9-1.4mm



Green 1-3mm



Red 0.9-1.4mm



Yellow 1-3mm

The information detailed in this leaflet is liable to modification from time to time in the light of experience and of normal product application, and before using, customers are advised to check with Ronacrete Ltd, quoting the reference number, that they possess the latest issue. Any person or company using the product without first making further enquiries as to the suitability of the product for the intended use does so at his own risk, and Ronacrete Ltd can accept no responsibility for the performance of the product, or for any loss or damage arising out of such use.

Resin Bound and Bonded Surfacing

Ronacrete