

EcoBound

Resin Bound Surfacing

1 Product Description

- RESINDRIVES EcoBound** is a flexible two-part solvent-free polyurethane hybrid resin binder used in conjunction with natural aggregates to provide a durable decorative resin bound surface for areas such as drives, footpaths, patios, courtyards, hardstandings and estate roads.

2 Preparation – Existing Surfaces

- 2.1 Ensure both the Product Information and Safety Data Sheets have been read and understood.
- 2.2 Ensure that the substrate is sound, clean, contamination free and able to withstand the load that is expected from normal use.
- 2.3 Remove oil, de-icing salt, grease and similar contamination by washing with a suitable degreasing agent, followed by flushing with water. Fungal and algal growth is best removed by applying RESINDRIVES Adcide to the affected areas with a hard broom, leaving overnight, followed by thorough rinsing or pressure washing
- 2.4 It is important that no dust is present on the surface as this will affect the self-priming properties of EcoBound. If the substrate is friable or contaminated with excessive concrete laitance, it is advisable to apply a coat of Primer C, 1-6 hours prior to installation to stabilise the surface. NB - Priming and EcoBound application must take place on the same day.
- 2.5 Any ironwork or kerb edges should be masked to prevent contamination with the resin.
- 2.6 Any edges that are not abutted should be restrained by an end-stop bead of the correct depth. This will serve to prevent the edges from deteriorating, provide a guide to assist application and ensure that the correct thickness of EcoBound is being applied. The beads are fixed using an instant-grab caulking adhesive, nailed or screwed.

3 Preparation – Paving

- 3.1 Existing paviers and paving slabs should be checked for looseness or rocking and corrected by re-bedding. The entire surface should be coated with EcoBound Resin at a rate of 1litre/M² in accordance with the data sheet. Whilst still wet, embed fibreglass mesh into the surface followed by a light broadcast of Abrugrit and allow to harden.

4 New Surfaces

- 4.1 New areas intended for overlayment with EcoBound should be constructed in either concrete to BS 5328 or asphalt to BS 594/BS 4987 and should be capable of withstanding the maximum expected loading.

- 4.2 As a general rule, new asphalt should be left for a minimum of 28 days to allow the bitumen to oxidise. However, this is dependent upon the level of UV exposure and may be considerably longer during winter or in areas that are shielded from sunlight. To ensure greater adhesion, it is advised that the asphalt should be left slightly open-textured as this will provide a mechanical interlock with the EcoBound topping.

- 4.3 Concrete should be finished as tamped or combed with a maximum texture depth of 5mm and should be left for a minimum of 7 days to allow surface drying. Existing surfaces should be protected or cleaned of concrete contamination, as this is inherently weak and will affect the adhesion of EcoBound.

5 Mixing

- 5.1 Do not apply to substrates below 5 °C. During cold weather, it is advisable to store all materials in warm conditions as this will greatly assist the application process. Where it is not possible to keep the materials warm, the aggregate should be pre-heated on site using a gas-lance immediately prior to mixing with the EcoBound resin
- 5.2 A preliminary check should be made to ensure that the aggregate used is thoroughly dry – **under no circumstances should damp aggregate be used, as this will seriously affect the strength of the final EcoBound surfacing.**
- 5.3 Mixing is typically carried out using an 80 litre capacity, forced-circulation mixer. Charge the mixer with 100kg of aggregate and dry blend for 30 seconds to mix any combined aggregate types or segregated material.
- 5.4 Using a drill and helical whisk, blend the total content of activator (small container) into the base material. Mix both components thoroughly until homogenous (1-2 minutes) ensuring all material from the sides and bottom of the container is included. Once the activator has been mixed into the base component, the curing process will start and it is important that no extended delays are incurred.
- 5.5 Start the aggregate mixer and immediately pour in the mixed EcoBound resin. Blend for 30 seconds until homogenous. Discharge the mix into a wheelbarrow lined with polyethylene sheet and tip onto the application area.

6 Application

- 6.1 Pre-level the material using a flat-bladed squeegee or alternatively rule level between battens of the correct thickness or any endstop beading that may have been fixed. Compress, level and consolidate the EcoBound surfacing using a double-ended bullnose trowel. Final finishing is achieved by wiping the surface of the trowel clean with a cloth or brush and white spirit, leaving it wet and gently but firmly smoothing any irregularities.

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- 6.2 Where a matt finish or a higher level of immediate underfoot safety is required, Abrugrip 50 sand should be lightly broadcasted onto the surface whilst still wet at a rate of approximately 100g/M2
- 6.3 Hardening of EcoBound is progressive and is dependant upon the type used and temperature. Where a faster cure speed is required, both EcoBound Std and EcoBound UVR can be accelerated through the use of an optional catalyst pack.
- 6.4 The final strength of EcoBound is determined by the choice of resin, aggregate and degree of compaction during installation. The installer should satisfy himself that the proposed mix is suitable for the intended use.

7 Design Elements

- 7.1 Where it is desirable to introduce design elements such as borders and inserts using differing coloured aggregates within the surfacing, wooden batons faced off with polypropylene or polyethylene tape should be temporarily fixed to the substrate. The EcoBound surfacing should then be brought level to the edge and allowed to harden. Upon removal of the battens, the edge should be masked and the alternative mix abutted. Complex design elements such as logos or roundels should be cut from MDF of the correct thickness, loosely fixed or placed onto the substrate and the same procedure followed.

8 Joints

- 8.1 Existing joints within concrete slabs should be maintained within the GeoPave surfacing.

- 8.2 Rake out any dirt or loose jointing material and reinstate using a proprietary jointing compound.
Mark out or place pegs at the two ends of the joint and apply EcoBound as prescribed. Upon curing, snap a chalked string-line between the two datum points and diamond sawcut a 10mm channel through the thickness of the EcoBound surfacing and in-fill level with the jointing compound

9 Cleaning of Equipment

- 9.1 Tools and equipment should be cleaned immediately after use using Cleaning Solvent. Where resin has been allowed to start to cure, it may be possible to apply heat and remove with a scraper.

10 Aftercare

- 10.1 No aftercare is necessary other than maintenance of appearance by occasional wet scrubbing with a stiff broom or light, cold pressure washing. It should be noted that EcoBound Std is not light-stable and that some yellowing will occur on exposure to sunlight. This is a natural feature of the type of polyurethane used and is not detrimental to the performance of the material.

If you are unsure with regard to the application of EcoBound, please consult ResinDrives Ltd before use.

Published August 2013



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