TekGrip DPB



Decorative Pebble Binder (Resin Bound Surfacing)

Version 1.0 (02/04/15 MJA)

Product Description

TekGrip DPB (decorative pebble binder) is a two-component polyurethane system formulated for resin bound aggregate surfacing applications. When cured, TekGrip DPB has excellent adhesion to a large range of selected aggregates and typical load bearing substrates such as bituminous and concrete surfaces.

TekGrip DPB is supplied as two pre-weighed components that when mixed together with aggregate produce a completely clear non-yellowing decorative bound surface. Choice of a suitable aggregate blend for use with TekGrip DPB is critical as detailed below. If you are unsure about the suitability of your chosen aggregate please consult Star Uretech who will test the aggregates performance.

Equipment

The following equipment is required in the application of TekGrip DPB and should be cleaned using TekGrip CS1 solvent.

<u>Mixer</u>	Mechanical forced-action mixer such as a CreteAngle or Baron mixer.
<u>Timer</u>	Stop watch or timer should be used to ensure the consistency of each mix.
<u>Tape</u>	Scapa masking tape for edging and protecting areas.
<u>Brush</u>	Stiff sweeping yard brush for removing any loose particles and dirt from the application area.
<u>Wheelbarrow</u>	Polythene lined wheelbarrow for moving material from the mixer to the application surface.
<u>Rake</u>	Rake or flat edged squeegee used for spreading mixed material.
<u>Trowel</u>	Trowel, tamping bar and float. A power-float can be used.
<u>TekGrip SP1</u>	Surface primer (Required for absorbent / dusty concrete).
<u>TekGrip CS1</u>	Trowel lubricant and cleaning fluid.
PPE	Gloves, overalls and goggles (Please consult the TekGrip DPB safety data sheet).

(Please note: Only TekGrip CS1 Trowel lubricant should be used with TekGrip DPB. Do not use a sledge or screed box. This method of application can lead to banding and poor matrix strength on the resulting edges)

Preparation

TekGrip DPB should be laid at a depth defined by both the type of substrate and its desired end use. The 'Minimum application depths and coverage rates' table found in the technical data sheet should be consulted prior to both specification and application. All surfaces should be dry and swept to remove any loose particles or dirt. Adequate preparation prior to mixing is essential and the following five point checklist should be completed before works commence:

- The mixer is clean, dry and suitable for this type of application.
- A fully waterproof mixing station has been prepared and both the aggregate and application surface is dry.
- The application depth & aggregate particle sizes are suitable for the substrate and end use of the surface.
- The resin has been stored correctly and is within its use-by-date.
- You have read the Technical data, safety data, method statement & approved aggregates documents.

Aggregate

It is essential that a specially washed, dried, dust free, approved aggregate blend is used in conjunction with TekGrip DPB. The appearance and performance of the finished surface is dependent on the type and size of aggregates used.

The Star Uretech 'Approved aggregate guide' details a selection of aggregate blends which have been designed to achieve strength, porosity, resilience and an attractive decorative appearance. The bond strength of the binder will be reduced if damp aggregate is used and excessive foaming, whitening or blooming will result.



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Mixing

The forced action mixer must be clean and dry prior to commencing operations. Different mixers will require between 30 seconds and 2-3 minutes (see EMT table on the TekGrip DPB technical data sheet).

Charge the mixer with the approved aggregate blend, but without starting it. Take the 'A' component (Plastic bucket) and pour the resin close to the centre of the mixer. Ensure any residue left in the container is given time to pour out. Start the mixer and after 15 seconds pour the contents of the 'B' component (Bottle/Jerry) on top of the resin from the 'A' component. In order to ensure the 'B' component is added as quickly as possible the bottom of the plastic bottle should be pierced and the contents squeezed from the container. Let the mix run until all of the aggregate particles are fully coated in mixed resin. When all the aggregate particles are visibly wet and glistening, mixing will be complete. Should areas of un-dispersed resin/stone appear or dry aggregate which does not appear to be mixing in, then the mixer is not suitable for the amount of aggregate being used. Do not leave mixes running for any longer than necessary, or unattended. More time in the mixer reduces the pot-life and consequently gives less available laying time. Mixing times will vary according to the particular mixer and aggregate and the mix time may need to be extended or reduced, however it is important to ensure that each mix runs for an equal amount of time and a timer or stop-watch should be used to ensure continuity.

DO NOT LET RAIN WATER OR MOISTURE ENTER THE MIX. ONLY USE AN APPROVED DRY, DUST FREE AGGREGATE BLEND.

Installation

As soon as mixing is completed, discharge the aggregate into a wheelbarrow or directly onto the work area. Using a rake or flat-edged squeegee, spread the mix uniformly to a depth approximately 25% greater than the specified finished thickness. Trowel and compact the screed flat, closing the surface and marrying into the previous mix, but avoid overworking the material as this can result in trowel burn and banding. TekGrip DPB can be power-floated with a lightweight power-float. The screed should be laid up to a hard edge such as edging strip, blockwork etc. and turned into a tie-chase at the threshold with the pavement or similar edges.

<u>Curing</u>

The mixed material remains in a workable form for approximately 30 to 45 minutes and is fit for foot traffic after approximately 6 to 8 hours dependent on the ambient temperature. For vehicular traffic the product should be allowed to cure overnight. Full properties will develop in 24 to 48 hours.

Slip resistance

TekGrip DPB cures to provide a smooth glossy finish however slip resistance can be increased by scattering fine sand / crushed glass over the uncured surface or by the incorporation of approved (C16-30) sand into the aggregate mix. This is easily done with TekGrip DPB at a rate of between 4kg to 6kg per 100kg mix.

Storage

TekGrip DPB must only be stored indoors and in dry conditions between 8 °c & 21 °c. If the containers are allowed to drop below 10 °c then the components will thicken and the 'B' component will form a skin or set into a soft waxy gel. Damaged material should not be used as this may result in product whitening or seriously reduced resin performance. The use by date shown on the products label must always be checked prior to use.

Contact

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