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SHIMICOAT
SURFACE SOLUTIONS

Resin Aggregate Floor Finishing System

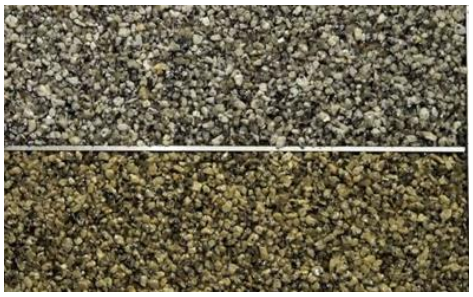
An Installation Guide

Following is a step-by-step guide to install Resin Aggregate Floor Finishing System using Shimicoat Products and Materials over any hard surface floor.

Products and Materials

- Polyasparatic Clear Resin (outdoor) / Ultra Clear Epoxy (Indoor)
- Aggregate colour of your choice
- Topcoat Sealer (Solvent Based Acrylic or Water Based Polyurethane)
- Diluent / Thinner

In accordance to Australian Standards, SHIMICOAT PolyAspartic is approved for Resin Aggregate. It is important using the right resin as noncompliance materials may result in fading, yellowing and discolouration.



Yellowing Effect (Lower Image)

Tools:

1. Forced Action Pan Mixer
2. Generator or Power Supply
3. Drill Mixer
4. Whisk Paddle
5. Gaffer Tape
6. Resin Trowel
7. Scrapers
8. Small Paint Brush
9. Cleaning Rags
10. Wooden/Metal Lute
11. Knit Wrist and Latex Gloves
12. Clean Wheelbarrow
13. Clean Shovel
14. Stanley Knife
15. Tarpaulins
16. WD40
17. Gas Burner and Bottle
18. Stiff Brush
19. Knee Pads
20. Disposable Trousers
21. Stopwatch
22. Hard Barriers, Cones and Warning Tape
23. Beading if required
24. Reflective Blankets (to cover stone and resin in hot weather)
25. Electric mixer or stick for missing resin
26. Brush and Rollers
27. Extendable Handle / Pole
28. Buckets 10Lt & 20Lt
29. Vacuum or blower to clean up the surface
30. Scraper (ONLY for full broadcast 4.5Kg/10sqm)
31. Spike shoes

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MATERIALS CHEMICALS RESINS EQUIPMENT

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Installation:

Surface Preparations:

1. Prepare the floor by concrete grinding and removal of loose surface materials.
2. Use Epoxy Crack Repair kit as required to fill any cracks, holes or damages on the surface.
3. Vacuum and/or blow out to remove dust from the surface.
4. Tape all around the walls and cover all surfaces that you wish NOT to be resin aggregated.

NOTE: For further information on surface preparation, please refer to our brochure, website or contact SHIMICOAT representative.

Resin Aggregate Installation

The system comprises of a two-component, solvent-free, cold-applied Poyaspartic resin binder and a range of dried Aggregates and Silica Sand or Slip Resistant Grits.

Silica Sand increases the strength of the Resin Aggregate surface by approximately 15-25% and will contribute to the anti-slip properties of the finished surface too.

We recommend 5% Resin and 95% Aggregat by weight, excessive and higher resin content may result in:

Pros	Cons
Greater Surface Bonding	Reduced permeability due to pore blockage
Greater Tensile Strength	Less susceptible to moisture Penetration
Reduced risk of reflective cracking	Increase Cost

Silica Sand increases the strength of the Resin Bound surface by approximately 15-25% and will contribute to the anti-slip properties of the finished surface.

Mixing Resin Aggregate

Ensure all materials are ready, personnel available and weather conditions are good, no forceable rain for 3 days. Installation Team:

1. The Mixer
2. The Luter
3. The Troweller



Mixer Responsibilities:

Make sure the Mixer has a stopwatch to ensure every mix is the same! Premix the resin in a bucket. In a bucket, mix Part A component resin with Part B component resin and mix using at slow speed mixer for a minimum of 60 seconds and until uniform. Turn ON the Timer (half hour working time)



NOTE: Turn ON your timer, now you are on the clock, you have 30min to complete below tasks:

1. Mix the resin,
2. Unload and transfer to the floor
3. Trowel and level

If using Drill mixer:
Load the aggregate into the resin while mixing. Mix for 1-2Min, dump on the floor, spread out and trowel away from you to achieve a flat, uniform finish surface.

If using Pan Forced mixer:

- Load the aggregate into the mixer.
- Slowly add the resin over aggregate into the mixer.
- Let it run for 2-3 minutes.
- Add the resin mix into the mixer and mix for no longer than 3 minutes.
- Switch the mixer off and empty the mix into the barrow.
- The Luter then takes the mix to the Troweller.
- The Mixer cleans the mixer down and checks that it is clean and free of any residual sands, aggregate and resin.
- It is important to clean the mixer well each time to avoid build-up of resin at the end of the day.
- It is almost impossible to clean the mixer after curing the resin.
- Quality cleaning procedure also avoids cross-contamination from one floor to another.
- The Mixer needs to ensure all the mix is scraped out of the mixer, taking special care to remove it from the blades and door of the mixer where it tends to gather.
- They need to wipe the mixer with Xylene or EpoDil till all the residue from the previous mix has been removed.
- Once the mixer is thoroughly cleaned, the Mixer is ready to start with the next batch.
- At the end of the day lightly spray the inside of the mixer with WD40 to stop any curing overnight.
- Make sure The Mixer uses WD40 end of EACH day to spay all surfaces of the mixer and wipe it clean as BRAND-NEW.

Luter Responsibilities



The Luter needs to tip manageable quantities of material between the batons on the floor. It is important to judge the right amount because if too much material is tipped, it will take more trowelling and more hard work.
The Luter must spread the mix as evenly as possible between the batons. Most importantly, the Luter needs to look at the surface that has been previously trowelled out and check for trowel marks and inconsistencies in the surface, from every possible angle. Any anomalies can be easily rectified at this stage before the mix has cured.

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Troweller Responsibilities



The Role of the Troweller - *Trowelling the Perfect Finish*

The Troweller's job is to plan the laying route and grid the area out in squares with chalk.

The Troweller lays batons in place to indicate where he wants the Luter to tip the mix.

Once the Luter has levelled the mix, the Troweller can begin.

The main objectives are to knit the mix together, smooth the surface and leave a final sheen ('polish look').

This must all be done using a hand trowel or lightweight finishing tool and with the least number of strokes possible.

The Troweller must judge the levels and depth of the mix.

Care should be taken to ensure that the correct coverage rate is evenly applied across the entire area.

One way to check the levels are even is for the Troweller to lay a long trowel, flat timber or spirit level, on top of the mix to judge any uneven parts of the surface. Similar to screeding.

In order to knit the mix together, the Troweller must ensure the aggregates form a closely compacted surface.

The trowel must be used with the edge slightly raised away from the stroke. This will prevent the trowel digging into the mix.

The Troweller must trowel the mix until all the aggregates stop moving in a fluid movement and become solid and consolidated. To test this property, cut a section into the edge of the surface being trowelled to see if it slumps or stays intact.

NOTE: The last stroke of the trowel must be always be in the same direction otherwise it can cause a striped effect on the finish.



When the Project has been completed:

- Block entrance with safety barriers and safety tape/warnings.
- Advise client of cure time (approximately 6 hours, but do not recommend foot traffic for at least 24 hours).
- Ensure site is left clean and tidy.
- Take photos (including photos of barriers/warnings!).
- Leave client with maintenance guide.

Topcoat Application: OPTIONAL

Once fully laid, SHIMICOAT highly recommend to seal the finish surface using Acrylic Concrete Sealer, especially in hot climate regions.

1. Test to ensure fully cured by twisting your thumb on aggregates. It should feel solid and dry with strong bonding of resin aggregate to surface.
2. Test for dryness by twist and turning your thumb over the surface and ensure aggregate are attached and bonded.
3. Use a blower to remove all dust and possible loose aggregates from floor.
4. Apply one or two coats of Clear Topcoat Acrylic concrete sealer using brush, roller or sprayer.



For further advise, please refer to our brochure, website or contact technical team at Shimicoat.

DISCLAIMER

Material Safety Data Sheet, Technical and Environmental Data Sheet can be provided upon request.
The information provided in this document is guidance only and considering the uses of this product are beyond the seller's control, the product is sold without guarantees or warranties. Warranties and guarantees shall be governed by SHIMICOAT Standard Terms of Sale. The purchaser shall make its own tests to determine the suitability for their specific application, and Shimicoat Pty Ltd is taking no responsibility for misuse of the product. The purchaser assumes all risk of use and handling of this product. This product will be happily replaced or credited back if defective. Beyond this, Shimicoat Pty Ltd is not liable for any damages caused by this product or its use.
This information and all further technical advice are based on our present knowledge and experience.
The customer is not released from the obligation to conduct careful inspection and testing of supplied goods.

End of Procedure.