Internal Polished Concrete

Image commissioned by Inspired Homes.

limecrete | DS GRINDING making concrete art...

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What is it that we do?

Limecrete is a fully computerised and integrated batching plant operating in Perth's eastern suburbs that specialises in the manufacture and delivery of decorative concrete products.

DS Grinding have been working with Limecrete for many years together, developing mix designs, specifications and finishing techniques for a premium concrete product which can be polished by DS Grinding to its full potential.

There is a comprehensive explanation of concrete polishing provided further in this document.

Why choose us?

DS Grinding & Limecrete have spent countless hours in research and development to create a Polished Concrete system that takes into account not only the processes to create the quality finishing of the floor, but the requirements, specifications and product essentials needed to offer a client the absolute best product from start to finish. The constant and seamless communication between both Limecrete and DS Grinding ensure that the entire process of your new floor is handled by industry leading companies working toward the same goal of a stunning polished concrete floor.

We have a combined floor display of the polished concrete products to choose from at Home Base in Subiaco where your clients can feel at ease in choosing a product. We are more than happy to meet with them to discuss product options.

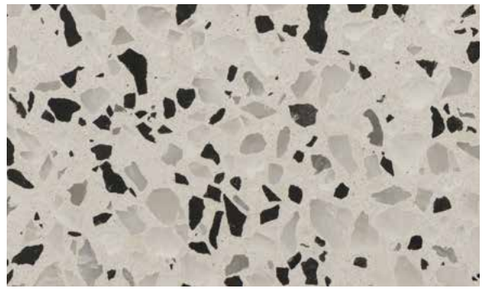
DS Grinding also have an in-house display in Clarkson in which your client can book a meeting and view the products as well as discuss finishes and options in which we can then document and report back to place the clients' choices into their contracts.

Polished Range

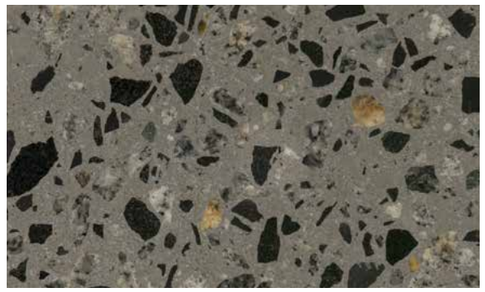
Crystal

Pewter

Amber White Fine Blend



Salt & Pepper

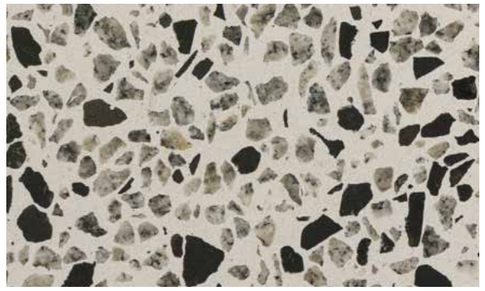


Granite

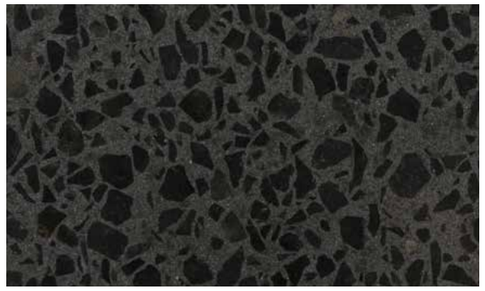
Architectural

Polished Range

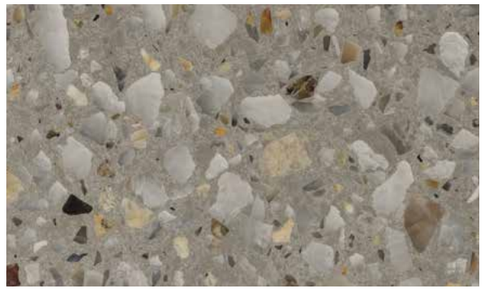
Architectural White



Black Ash



Black n Black



Coral Grey

Coral Fine Blend

FOR THE FULL PRODUCT RANGE, VISIT:
www.limecrete.com.au/swatch/

Please note: All brochure, images, samples and other display projects are indicative and illustrative only of the type of finish expected.
No guarantee of the products' colour or texture is given or implied.

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The Process

- You select the Limecrete Polished Concrete mix of your choice.
- Your placement team will set up the slab when civils have been completed and a ground compaction report is provided.
- Slab and footings will be poured by your chosen concrete contractor to the recommended Polished Concrete Specifications outlined in the DS Grinding Builders Brochure.
- The poured surface will be cured for 4-7 days thereafter (either chemical curing or water curing is recommended) and it is recommended no/or very limited access to the slab for a further 14 days afterwards to allow for proper curing.
- During the initial curing period, DS Grinding will 'Pre-Grind' the surface in consultation with the Builder/Client. DS Grinding strongly recommend the client meets on site during the Pre-Grind to view the floor prior to the protective grout being applied.
- The 'Pre-Ground' slab is then handed over to the Builder to continue construction. Surface protection is recommended at this point.
- 6 Weeks prior to Lock-Up, the Builder/Client is to contact DS Grinding to book the final polishing process in with the Builders schedule (Prior to cabinetry installation).
- Working in with the Builders Schedule, DS Grinding will complete the final polishing processes to the floor handing over a completed, mechanically polished floor. At this point the builder may choose to protect the floor during the final completion of any construction required. We would recommend 'Ramboard' at this point and do NOT use any adhesives or tape on the polished concrete surface.

The next part of this document explains in detail what polished concrete actually is, how there are different styles, the process of polishing and recommendations in how to achieve certain finishes as well as important detail to note to ensure a professionally presented end product.

PRODUCT INFORMATION

Mechanical Polished Concrete

Or true polished concrete, is a process in which the concrete is treated and worked on in such a way to increase the overall strength and durability of the surface and to provide maximum abrasion resistance with the longest possible lifespan as a finished surface.

This is done using the following methods:

- Correct grinding techniques with appropriate machinery for a mechanical polished concrete system.
- Use of the correct concrete densifiers/hardeners with strict densification techniques.
- Use of the correct grout systems and techniques.
- Polishing a correctly densified surface to the clients desired gloss level using the correct tooling for optimum finish and performance.
- Application and use of a penetrative sealer.
- Understanding the correct maintenance program/ system, the strengths, limitations of a finished floor and passing this information to the client.
- Having an experienced and well-trained team to complete all of the above.

VARIOUS SURFACE FINISHES

Burnished Finish

This is when the finished floor is to look as though it is a pure and natural concrete surface 'untouched'.

There is a common misconception that the concrete floor is simply burnished, a sealer is then applied and it is completed. However, in order to meet the same durability and strength in the surface as other durable mechanically polished floors, the same densification and sealing processes are required as in all methods of polished concrete.

The differences being the grinding stage is done with specialised tools to remove minimal surface stock and the grouting stage is removed from the process (unless specified by the client). It is important to note that particularly 'Burnished Styled' polished concrete floors are not perfectly flat when finished, therefore it is expected to see random flatness variations, sheen variations, cracks, divots etc in the floor.

Industrial Finish

This has a large spectrum of finish options ranging from 'Minimal Stone Exposure' to the 'Hit and Miss' exposure style.

The process uses specialised grinding tools to minimise stone exposure while working towards a flatter floor. In most cases, to achieve a flatter floor overall, slight stone exposure may be present in a random effect. With 'minimal stone exposure', the polisher is to find the medium between flatness and minimal exposure. When moving towards a hit and miss style, they are advancing towards a flatter finish overall, which in turn, will achieve more of a random exposure throughout.

It is important to note, using the term 'flat' and 'flatness' does not mean we are responsible for levelling the floor to a perfect level of flatness. It means working between the clients request and the current flatness levels the floor is in at the time of arrival. On another note, if the floor is exceptionally flat, then DS Grinding can easily achieve any area of the industrial spectrum throughout.

The Full Aggregate Exposure Finish

This is when the floor is expected to have full and even aggregate exposed throughout the floor.

DS Grinding will use aggressive grinding tools in such a way as to expose the floors aggregate evenly throughout while attempting to keep or improve the concretes flatness overall. After this initial heavy grind, scratch removal techniques, grouting, densification, polishing and sealing processes similar to the above styles are applied to create the finished surface.

With all of the styles above, they ALL require the full process of grinding, densification, grouting (unless specified), polishing and sealing.

The differences between them is the initial grinding process, after this stage, all processes are identical. The gloss levels are determined by the client, but no matter what the gloss level, it is still 'polished' concrete. Meaning 'polishing' of concrete is not a term meaning 'shiny', but meaning the process of turning a concrete floor into a finished and usable surface with the increased strength and durability as discussed above.

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Pros

HIGH DURABILITY: Polished concrete flooring is extremely strong and resilient, and can withstand the pressure from very heavy foot traffic and equipment. It is difficult to damage and nearly impossible to chip or scratch.

EASY MAINTENANCE: Polished concrete flooring is extremely easy to maintain. Regular sweeping and dust mopping for dirt build up, and wet mopping when required. No further surface treatment or the application of specialised chemicals is required if used under normal conditions.

NO VOC (VOLATILE ORGANIC COMPOUNDS): Concrete floors do not contain harmful Volatile Organic Compounds (VOC) like some hardwood floors, vinyl carpets and synthetic carpets.

NON-ALLERGENIC: Concrete floors are an allergy friendly option, as they don't harbor allergens and are easy to clean.

NATURAL CHARACTERISTICS: Being a created product, every polished concrete floor is different. Each surface has its own unique characteristics that make it personal to the home owner.

SUSTAINABLE FLOORING ALTERNATIVE: Polished concrete does not require hazardous coatings or cleaners to maintain the surface.

SEAMLESS DESIGN: Polished concrete surfaces are a seamless flooring solution with no grouting joins or piece joins like tiles or timber.

Cons

HARD FLOORING: Like tiles, polished concrete is a hard surface underfoot.

COLD UNDERFOOT: Polished concrete is no colder underfoot than tiles or natural stone flooring. However, the customer needs to be aware that like tiles and stone, polished concrete does not retain heat like timber. Installation of under-floor heating processes (electrical/water) can be fitted before the slab is first poured.

CHEMICAL RESISTANCE: Much like all stone and natural flooring, polished concrete is resistant to many things, but acidic and alkaline materials can damage the surface. Spills need to be cleaned up as soon as possible to avoid etching.

CRACKING: Like it or not, even expertly installed concrete may develop small cracks. That's because the large expanse of a slab must endure changes in temperature, moisture and settling. Current technology in construction has eliminated many elements that can cause cracking, however in rare events it can occur. The majority of any visible cracking is fixed during the polishing process.Those that occur after completion are usually so minute or 'hairline' they can barely be seen.

Manufacturers of Fine Concrete

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