



Polished concrete

Strong enough for a hovercraft

Polished concrete is no longer considered a niche or passing trend in WA, rather as a new technique being perfected by local professionals.

By Daniela Englmayr

Imagine a smooth, high-lustre floor that's tough enough for heavy forklifts in a warehouse and yet shining and professional enough for office buildings, hotels, and restaurants.

Polished concrete is fast becoming the ultimate no-wax flooring material. Thanks to advances in polishing equipment and techniques, contractors are grinding new and old concrete floors to a high-gloss finish.

Factor in the superior durability and performance of concrete, and it's no wonder that more retail, warehouse, and office facilities are opting for polished concrete flooring as an alternative to marble, granite, tile, linoleum, or coated concrete.

It holds up well to heavy foot traffic and resists the marks of forklift truck tyres and staining from oil and chemical spills.

Polished concrete seems to have passed the test of use and proved itself to be a viable alternative for floors and other surfaces that need to look aesthetically pleasing.

The concept has become increasingly accepted in WA in the past decade, the local industry is continuing to improve techniques, and consumers

concrete, stamped concrete, interior concrete floors, patios and walkways, coloured concrete, concrete resurfacing, concrete driveways and concrete home construction.

No need for toppings

One man on a quest to find innovative ways of using concrete is Andrew Negovetic.

Negovetic.

He first made his mark on the WA scene by developing a two-stage polished concrete system whereby the construction slab becomes the

finished floor, with no need for toppings to be poured over it.

Now, a few years later, he has perfected the concept by applying a concrete hardener on top, which makes the concrete set as hard as granite. The hardener is removed after 12 hours and the concrete polished in much the same way as granite. The large industrial

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are becoming more creative in their requests.

New web statistics by the world's largest source for concrete information, The Concrete Network, reveal the top 10 decorative concrete services in demand by homeowners.

Most requested are concrete countertops, followed by stained

When the specifications call for something special.... Call the specialists

Whatever the project from commercial to residential, Polished Concrete Specialists' expertise is in demand for good reason. We specialise in providing concrete services at the cutting edge of innovation using the latest technology, machinery and techniques to deliver the finest finishes.

With a finish that's practical and durable as well as aesthetically striking, polished concrete has been widely embraced for commercial and industrial applications. As the "polished concrete specialists" we have not only met the demand but also delivered groundbreaking solutions.

Exclusive Ultrashield System

Unlike traditional polished concrete where the floor is finished with a top coat sealer that can require further maintenance our Ultrashield System, proven over four years, is maintenance free.

The concrete is 'hardened' and then polished like granite to any level of sheen

required, creating a scratch and stain resistant, maintenance-free floor preserving its bright appearance.

Before we start, you pick the finish

Floors can be ground to a deep exposure of stones within the concrete for stunning effect, or just a light exposure where an economical, practical, hardwearing and dustless floor is required within a work environment.

Some completed projects include:

Schools, Restaurants, Trade Stores, Furniture Stores, Hotels, Breweries, Car Show Rooms, Hardware Stores, Resorts and Mining Company Factories.

POLISHED CONCRETE SPECIALISTS

easy to clean • no grout • allergy free • stain free

For more information or a free copy of our DVD please phone Andrew Negovetic on 0410 655 041.



grinder which does the polishing manipulates the floor surface to create the sheen that individual clients may desire.

After that, a top grade penetrating sealer is used (as used for granite benchtops and floors) to prevent anything from penetrating. It's that quality which gives the technique its name: his company, Polished Concrete Specialists, calls it the Ultrashield System. Unlike the conventional way of top-coating polished concrete, where stripping and resealing is eventually required, the Ultrashield System hardens the concrete, thus enabling it to be polished to a scratch- and stain-resistant maintenance-free floor.



Landmark moment

Three months ago another's misfortune turned out to be a groundbreaking chance for Ultra Shield to really prove itself.

A 1500m² factory producing large mining machines was in a dilemma over its badly damaged concrete floor.

The factory housed five train rails for machinery to be transported through the factory and lifted by crane.

"They wanted to get rid of the rails to give them a greater choice of machinery placement. Considering the crane

could only lift 20tons and the mining equipment can weigh 60tons and more, they decided to bring in a hovercraft that has the ability to lift 220tons," Negovetic said.

Due to the nature of the function of a

hovercraft, it could not hover over rails, holes or any soft area of concrete as it would be both difficult and extremely dangerous due to the high air pressure blowing debris across the workplace.

"That's where we came into the picture. We ground the whole floor to 5mm, grouted and applied the Ultrashield system," Negovetic said.

"Now the hovercraft can safely fly over it and pick up the heavy machinery without doing any damage."

Negovetic is one of the pioneers of polishing concrete in WA; when he set out in 1997, few people understood the benefits and the first few years were tough.

"We ate rice for a little while... it was hard because very few knew the product, although those who did loved it," he said.

Since then his business has

completed everything: homes, schools, restaurants and pubs, industrial trade stores and showrooms, furniture stores, hotels and lobbies, appliance stores and accommodation, including the Novotel Ningaloo Resort earlier this year.

In WA, the demand is for two main finishes: one to grind the floor down to expose the aggregate inside and the

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second is to simply expose the matrix in a warehouse look.

"It's particularly in vogue for people to want an industrial look in their houses, bringing a lot of light inside and providing durability," Negovetic said.

Most popular in WA offices and shops is a normal grey concrete mix with granite, mainly due to the beautiful, incredibly coloured and abundant granite available in the State.

Terrazzo, which is created by exposing marble chips and other fine aggregates on the surface of finished concrete or epoxy-resin, is mostly made with imported materials not readily available in Australia.

"I call polished concrete the local terrazzo, but it's stone mixed with cement," Leon says.

"But instead of using imported stone such as Italian marble, which is quite soft, it uses a local product which is harder wearing.

"Incidentally, we do have people buying imported marble chips from us to throw into the slab of polished concrete."

People who understand terrazzo and polished concrete are on the same wavelength, the main difference is that polished concrete is about half the

price, he says. "It can vary, some people just like a plain finish, which we call the warehouse look, a polished surface with no aggregates which has a price of about \$70-80m² for houses," he said.

"A terrazzo look will cost about \$110, and importing more expensive

concrete can bring it up to about \$140-\$150.

"On the other hand, real terrazzo costs about \$250, even up to \$300."

Three methods

Cement Concrete & Aggregates Australia's Briefing Note 05 lists three main techniques for polishing concrete

...three main techniques for polishing concrete in Australia are steel trowelling, burnishing and honing...

in Australia: steel trowelling, burnishing or honing the surface of the concrete.

Steel trowelled

Steel trowelling of the concrete surface is mainly used when a basic flat, smooth finish is required.

Some trowel marks may be present unless smooth finished is specified.

Typically, normal grey concrete is used, but concrete incorporating off-white cement can also be used to achieve a lighter and more

consistent colour.

Burnished

Burnishing provides a hardwearing, durable finish with a surface lustre. It is usually produced by steel trowelling the surface until the concrete surface takes on a polished or glossy appearance of its own.

Alternatively, products such as floor waxes, liquid polishes and resin-based coatings can be applied to the surface and burnished with polishing equipment.

Burnished finishes can provide elegant up-market floors with low maintenance.

Honed

Honing typically provides a smooth, low-maintenance and durable finish by grinding the concrete surface with abrasives.

The term 'honed' is used to cover a level of grinding that produces a smooth but matt surface. Further grinding with progressively finer abrasives produces a 'polished' finish.

The process of grinding exposes the aggregates, which therefore have a significant influence on the final appearance.

Colours and patterns

Different colours can be introduced by colouring the concrete, using special aggregates, and different patterns are achieved with inlaid timber strips, joints,



tiles or abrasive-blasted and scabbled finishes forming borders around individual areas.

While polished concrete finishes have been generally associated with slab-on-ground type construction, they

are equally applicable to suspended slabs.

Also, on wall panels cast horizontally (tilt-up or precast) all the decorative options normally associated with floors can be used.