



1. Priming a large area before oiling.
2. White oxide was added to the concrete mix, and then white stain was added to the penetrating oil.
3. Aggregate after grinding and oiling.
4. Penetrating oil with white stain added.

Natural finishes for concrete floors

A healthy and safe alternative is available

— BY ANGELA PETRUZZI —

The notion of polished concrete floors originated from a time when concrete floors were waxed and then highly polished with a soft cloth. This would have involved a great deal of elbow grease. Luckily, nowadays the look of polished concrete can be achieved by a number of techniques ranging from liquid polishes, natural oils, chemical sealers and grinding to expose the aggregates, to using colour in the concrete, to name but a few.

Pros and cons

There are several pros and cons to having a concrete floor. It is important, as with all projects, that all are considered. Naturally these will differ depending on your personal needs and the result you want. Some areas to consider are: thermal mass, strength and durability, ease of cleaning, low maintenance, specific look, carbon footprint from production, costs of polishing and hardness of the surface.

New slab

If you are building or extending then you have various options and choices open to you. These, however, may be limited by factors such as the slope of the site, neighbouring homes, council regulations and many more. Getting the footings right sets the basis for any building. Builders, architects and engineers can point out factors that you may not have necessarily considered. For example, the inclusion of in-slab heating options if you live in a colder climate.

If your choice of flooring is concrete then choosing the colour and aggregate for a new slab will need to be specified

and discussed with the concrete supplier. To save delay and eliminate any heartache, this should always be discussed at the early planning stages.

It must be noted that while many finishes can be achieved with minimal help from professionals, some options require trained professionals to achieve the desired look, as well as careful preparation and protection of the slab during construction works.

This is where the fun starts. The site is then prepared, dry weather is prayed for, the mix, colours and quantity are chosen and ordered.

Existing slab

If the home you have bought (or you may be renovating your existing home) has old carpets over the slab and you want to remove these, you now have several options. You may have considered laying timber, cork, engineered timber products, tiles or even new carpets again and the list goes on. Naturally your budget and the look you want to achieve will weed out many options, as well as the physical aspects of the existing rooms or areas in consideration. For example, if timber is laid, what happens to the skirting boards. If these are removed and reinstalled, would painting be necessary? What about the doors and frames – do they need to be adjusted?

If you make the decision to use the existing slab and work with what you have, then some of the factors you will need to consider are:

- the state of the concrete,
- if you want the aggregate exposed,
- how uniform the look may be once the surface is ground,

- what kind of coating to seal the concrete with.

It may be difficult to achieve the finish you would like from existing concrete once the carpets have been removed. Working around walls, especially in small areas, can make it tricky to achieve an even look and a great deal of hand work is often necessary. This will then be reflected in the final price. Considering some of the grinding machines are 'little monsters,' it may be impossible to have small narrow areas completed as you would like. Grinding and sealing of the surface may be the only option available in some areas; many existing slabs were not made to be 'polished.' The state and strength of the concrete will play a big part in the finished look and what can actually be achieved. Surface cracking, uneven/irregular scattering of exposed aggregate, or other imperfections may however add texture and interest to the final finish.

The finishing act

Another possibly long and arduous task will be to figure out the best sealer to use. There are many on the market with selections ranging from coloured or clear, natural or synthetic.

What are your expectations? What can be achieved? Is a sealer necessary at all? Do you have to use synthetic coatings that may offgas for some time? How hard-wearing will it be? What about maintenance?

If you were unable to achieve the look you desired due to the state of the concrete, can you work with the existing slab to create a different look with minimal effort?

My experience

Having moved into a 30 year old factory with a damaged floating floor, the first step in our renovation was to remove it and check out the state of the concrete. For a section of the floor we decided to put battens down and lay timber. On the other section, we wanted to achieve two different looks from the concrete.

We did not need a concrete expert to tell us our slab was never intended to be used for anything other than a factory floor! We did not really know what to expect from the finish. However, I knew I wanted a lighter coloured floor surface in the part that was to be my office.

Due to the size and nature of the machines, we had the grinding done professionally by Concrete Concepts. This is not a task for the DIY person unless you are very skilled with such machines.

For the office area, we had the top few millimetres of the surface removed as all I wanted was the paint removed and to level the floor off. This exposed the aggregate in parts and showed up the fine cracks in the surface as well as some unexpected stains deep within the slab.

Having two office chairs with wheels constantly moving required the coating to be hard-wearing but easy to maintain and rejuvenate as well as being health friendly to those who would use the space.

As stockists for the products, I decided to use the Livos natural oils. Not only are these health friendly but are also very easy to rejuvenate and maintain. No stripping back would be necessary and rejuvenation could be completed quickly and would dry overnight before it was back in action. Being penetrating oils meant there was not an actual surface layer to wear off, reducing visible damage. We used the *Meldos* natural hardening oil with 5% of the *Vindo* white natural oil paint to give a light limed effect. This has highlighted the fine little cracks in the surface and has also kept the surface from going the dark grey colour of wet concrete.

The second area was ground back to the aggregate. Not an easy task to do in narrow confined areas such as the hallway due to the size and manoeuvrability of the machines. (Grinding prior to walls going up is

definitely an advantage and so much easier, but the surface must then be protected from damage due to subsequent building work).

There was a variety of colour in the aggregate but certainly not what you can do now when you pre order the mix. Again we wanted a natural finish but chose a clear finish to highlight the aggregate and the colour of the concrete. Here, due to the surface being slightly more porous as it was ground back further, we primed first with the clear *Linus* oil and then used the natural oil sealer *Kunos* on top. This allowed the aggregate colours to show through and gave the concrete a darker look.

Both coatings were easy to apply. Once the grinding was finished and the surface vacuumed, the oils were applied with a lamb's wool applicator to create a fine film. After 20 minutes, what had not penetrated was removed. More by coincidence than by choice, the weather was perfect for a spring day and we were able to ventilate well to aid the drying process. Being penetrating oil, we were able to easily walk over the surface to wipe off any excess.

Having completed the oiling process we were able to put in our furniture after only 24 hours. Now, after nearly two years, we have only occasionally washed the surface and it continues to look as amazing as it did originally. ■

Editor's note: While Angela has written about her experience using the Livos range of natural oils and sealers, the same principles could be applied to other natural products. It is nice to know that there is an alternative to synthetic sealers.

Angela Petruzzi is from Anro Floorcare Pty Ltd, a floor sanding company that exclusively uses the Livos natural oil range of products.

www.anrofloorcare.com.au



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5. Existing concrete slab after removal of damaged floating floor.
6. Grinding back of the concrete surface requires specialist skills and equipment.
7. Surface after grinding, ready for the application of penetrating oil.