

# The many benefits of oiled timber and concrete floors

There are many things to consider when choosing a floor coating. Unfortunately this is typically done at the end of the build or renovation; when budgets are stretched, building schedules have been rewritten time and time again, there's frustration due to various delays and all those other joys that are commonly associated with the work.

The many and varied types of coatings available to choose between is mind-boggling. You need to do some homework to help make the right choice. This is especially important when considering the long term aspect of the project. The budget may be stretched; however, 'cheaper' options often work out to be more expensive in the long term, and in more ways than one.

There are many types of oils to choose from. Natural penetrating oils preserve the original beauty of wood floors, adding a warm, rich patina with time that modern day synthetic coatings cannot equal. You cannot compare a synthetic coating, whether pre-finished or completed on site, with that of a naturally oil finished surface as the look and feel are completely different. Synthetic coatings protect the floor by forming a layer on the surface. This is in fact a plastic film that once scratched and dulled often requires sanding and resurfacing to repair or rejuvenate.

In contrast, a properly oiled floor does not leave a visual or tactile layer on the surface. The protection is achieved through application of fine coats of oils (which also contain natural waxes and resins for durability). These floors are easy to care for and are spot repairable. This makes them more economical in the long term than

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any type of acrylic, polyurethane or oxide coating as an oiled floor does not need to be re-sanded to be rejuvenated and made to look like 'new' again.

If you are still uncertain as to which options to use on your current floor project, please refer to articles in previous issues (*TOB 144 Dec 07/Jan 08*, *TOB 168 Dec 11/Jan 12*, *TOB 176 Apr/May 13*) plus consider the information in this article. While this article is mostly in relation to timber floors, the same principles apply for concrete and other substrates.

## Natural oiled floors versus synthetic varnishes

Although both essentially protect the floor from everyday living, one product is made from renewable materials that have been around for hundreds of years, whereas the other is a synthetic, modern chemical product based on petroleum.

## VOC (VOLATILE ORGANIC COMPOUNDS)

While both contain VOCs, natural ones react differently to synthetic ones. Natural VOCs do not omit any semi VOCs once the coating is dry; synthetic, even 'no' or 'low' VOC, products can continue to offgas these dangerous semi VOCs for a period of time.

It is not enough to only know the VOC content within a tin; you must know what type and also consider the effects on the indoor air, after all that is what matters. If you are still not convinced,

would you consider banning oranges as they also have natural VOCs?

## SURFACE LOOK

When applied correctly the natural oil-wax-resin mix combines and bonds with the top pores of the timber, leaving a natural sheen. This enables easy spot repairs and rejuvenation, if or when required, that can be undertaken without having to redo the entire surface (detailed below). When synthetic layer forming surface coatings require repairing, you need to completely redo the whole area. This usually involves moving furniture, perhaps countersinking nails and sanding before recoating.

## TIMBER MOVEMENT

Oiled floors allow the boards to move individually, be it due to high traffic, direct sunlight or moisture in the air. Varnished coatings tend to 'glue' the boards together; this is commonly referred to as 'edge bonding.' Often irregular gaps appear in varnished floors; the reason for this is timber needs to move, adjusting to the current environment and it will do so in the weakest spots.

## REPAIRABILITY VERSUS DURABILITY

Oils enhance not only the look but perhaps, more importantly, the actual durability and life span of the wood itself. Urethane coatings may be slightly more durable as a coating, however, every time they are sanded, layers of the timber are also removed. Considering the average thickness of the board, there is only a certain amount of sanding that can take place before expensive replacement becomes an issue. Over time, and especially with heritage or recycled



*After 3000 plus students across the boards since it was originally sanded and oiled, this floor looked tired (B).*

*Due to the wear and tear, a maroon pad was used to clean the surface without any need for sanding (E).*

*Oil was reapplied (D), ensuring all excess oil was removed (C).*

*(A) Completed. Note, the bench was left in place, and the floor was ready for the next lot of eager students the next day.*



floors, repairability and rejuvenation is more critical than the slightly additional durability of the surface coating.

### EMBODIED ENERGY OF PRODUCT

Consider the manufacturing process of products from beginning to end; a urethane product is highly processed, requiring and using more energy in its production. Whereas the opposite applies for natural products; here the largest part of the product is often linseed oil, a renewable resource that is cold pressed.

## Rejuvenating an oiled floor

'How' and 'when' you bring back some life and lustre to your oiled floor is very much dependent on a number of factors, some of the main ones being wear and tear and whether it is a single person household or a large family with pets. Is the external landscape completed? If not, you are more likely to bring grit into the home, which will scratch any surface. Sun exposure dries the floor over a period of time. All of these factors will affect the time frame and can vary anywhere from two to 10 years, with an average being five.

Because an oiled floor is not a layer forming coat it does not require full sanding again, so you can choose to only treat a single room, not touching the others or even doing sections within a room.

## Short term maintenance

Keeping on top of a proper maintenance regime will not only keep your floor looking great but will also reduce the time and effort in its rejuvenation. For general cleaning it is best to use a gentle pH neutral cleaner, or one that is recommended by the manufacturer. Keep washing/mopping

to a minimum. Timber does not like too much water, whatever it is coated with. You can spot clean if necessary – why wash the whole floor if it is not required?

A good door mat obviously helps with keeping grit out and if you wanted to take shoes off, oiled floors are certainly warmer to walk on than a varnished floor. A little sensible care will keep your floors looking good and prevent problems before they occur. Remember – the amount of care needed is dependent on the area treated, your location and lifestyle. There is not a single rule for all.

In regards to mops, be aware that some micro fibre mops and cloths are extremely harsh and may strip the nutrients/oil from the flooring. Cotton mops or cloths that may be removed and washed are ideal.

## Spot rejuvenations

You will find that certain areas wear more quickly than others. For example, at the front door where you turn around to open and close the door tends to get more wear than the rest of the hallway. You can very easily refresh this area with minimal fuss and very little product; in fact, a few drops will do. All you need to do is make sure the area is clean and dry and use a cloth to rub in some of the initial oil used or a maintenance oil from the same line of products. After approximately 15 minutes wipe off any excess oil that did not soak into the timber, then stay off the area overnight. There should not be any visible edges and with no toxic odours there is no issue with doing this, for example, at night and then sleeping nearby.

If you have oiled your floors in areas that are often in contact with water, for example, bathroom floors or kitchen

benches, a few drops of oil every now and again works wonders and keeps the surface intact and nourished.

## Spot repairs

Typically, only spot sanding may be required on extreme marks or scratches. How often, even while being careful, do we still manage to scratch the floor? Or do you have visitors that wear stilettos on our soft radiata or Baltic pine floors? These accidents can be unsightly and costly on a urethane floor but can be repaired with a minimum of fuss and economically on a floor treated with oils.

While there are many advantages, natural oils are not bombproof. If they do stain from chemicals or animal urine that has been left sitting for a while, a gentle sand using paper in the same grit the floor was sanded with and an application of the oil will usually repair the area.

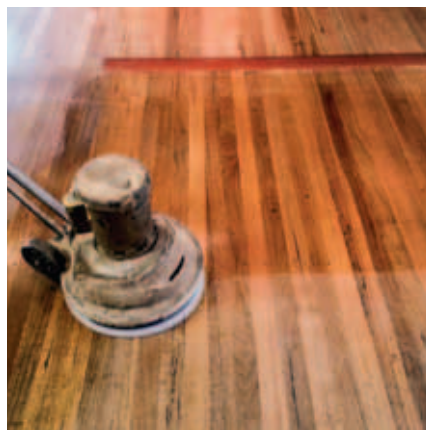
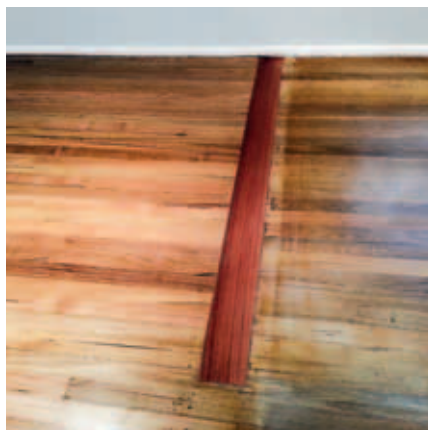
Alternatively, for stubborn deeper stains, use the wet-on-wet method, Begin by cleaning the surface, to remove any residue sitting on top, and then ensuring it is completely dry before continuing. Apply some of the original oil used on the floor to the stained area, using sandpaper to gently sand the area while wet. Once the stain is no longer visible, apply some more oil if necessary, always removing any excess after 15–20 minutes. If the stain is quite deep there may be a slight colour difference as timber develops its own patina, but this will blend in and 'catch up' with time. This method of repair can also be successfully carried out on an oiled concrete surface.

It should be noted here that oils cannot be used to repair a urethane floor, and also that not all oils or waxes are as natural as you may think. Check your product!

## SCRATCHES

Gouges caused from moving heavy furniture or stilettos require other methods of repair, which again will depend on the depth, with some easier to repair than others. One little trick is to gently sand the oil off the surface and apply some water; this will allow the timber to swell up and bring up

*This existing floor was sanded and re-oiled, which rejuvenated and nourished it to match the newly laid floor of an extension.*



the indentations. This works for marks that are the result of compression of the timber pores and not a piece taken out. If necessary, reapply some more water and once it has swollen up, even if it is only slightly, then allow to fully dry. Once dry, sand lightly to ensure it feels the same as the rest of the floor and apply some of the original oil. It may be necessary to reapply some more the next day. Stay off the area for a day and then it is back to normal. Again, there may be a slight colour difference or you may not have been able to repair it to the original condition, however this will just add to the character of a lived on floor.

Another option that requires more care would be to use a steam iron. Lightly sand the oil off the surface, apply some steam and heat to swell the timber and treat as above. You would need to be extremely careful here and only try this if confident, as you can quickly create a larger problem than the initial one at hand.

## Large area rejuvenation

Imagine the logistics of having to move the whole family out, find storage for furniture, remain out of the house again for days, more dust from sanding, timber wearing thin, coming back to a smelly home, moving furniture in again and trying to settle back to normal. I think you would agree this is a very laborious, costly and disruptive process, which is necessary for redoing urethane floors.

With an oiled floor that has become a bit worse for wear, dull with time or no longer repels water, rejuvenation is so much easier, more cost effective and DIY friendly. There are two ways to rejuvenate a large area, whether it be at home or a larger commercial site (here a buffing machine sometimes called a rotary sander would be advantageous and highly efficient). The more items you remove off the floor the more efficient you will be, however there is no need to move the big heavy furniture out of the room. You can quite easily work around a heavy wall unit for example. With large couches or tables, make sure they have felt pads underneath, move them, rejuvenate underneath, then push them back into their place and continue.

### BY HAND

Firstly ensure the surface is clean and dry. The simplest method of rejuvenation is on hands and knees rubbing in some



*Even an oiled concrete floor can be repaired. Here using a wet-on-wet method, the surface is being repaired after leaking battery acid affected the surface sheen.*

oil to the surface with a cloth or very sparingly with a lambs wool applicator. It is recommended to complete small areas at a time. After approximately 15 minutes, go back to the starting point and wipe off any oil that did not penetrate. You can walk over the wet surface, ensuring that you remove footprints as you walk out of the room.

When finished, the surface should feel slightly greasy but not wet. Remember you do not want to create a layer otherwise you will have the same problem as with a layer forming finish. Stay off it overnight and it's all done. This method also allows you to do one room at a time very easily.

### BY MACHINE

If the surface is a little worse for wear it is advantageous to use a sanding/buffing machine, as it can be used for two purposes. Firstly, use a white polishing pad, sometimes called a glow mesh pad; this cleans the floor as well as any residue that is on the surface. Then apply the oil as above on hands and knees and use the machine again to easily remove the excess. This is achieved by placing an absorbent cloth under the pad to wipe off the excess oil (this saves going on hands and knees again). The actual result is a more consistent finish and it also ensures that you have covered the whole area. Rather than applying by

hand, you can also apply some oil drops onto the surface and buff with the white pad and machine prior to ensuring all excess is removed.

### BEEN A WHILE...

If the maintenance has lapsed for a bit too long, and your floor requires a little more TLC, then again, this is very achievable. You would need a maroon pad, which can be obtained from floor sanding supply shops or even large commercial cleaning suppliers. This pad, used under a machine, is a light abrasive that will remove any small scratches and other imperfections on the surface. It does not sand the timber so countersinking nails is not necessary. Even here, you do not need to move the heavy furniture out. Once you have given the floor the once over with this pad, vacuum if need be and apply the oil as above. To remove the excess oil, you may as well use the machine again while you have it. If the floor is really dry, and you have the time and inclination, a second very thin coat would not hurt.

When comparing a varnished floor to an oiled floor, keep in mind a urethane finish starts to mark from day one. These abrasions will be visible from all angles, even more so when it is a gloss finish and cannot be repaired. An oiled floor, on the other hand, may not be as 'shiny' however it is easy to repair, rejuvenate and keep nourished for much less effort and the production of the product is much more sustainable and economical long term.

After all, if you are interested in sustainable design or features in your home, you should always consider all aspects of the build, right down to the paints and coatings. ♦

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### Links & resources

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