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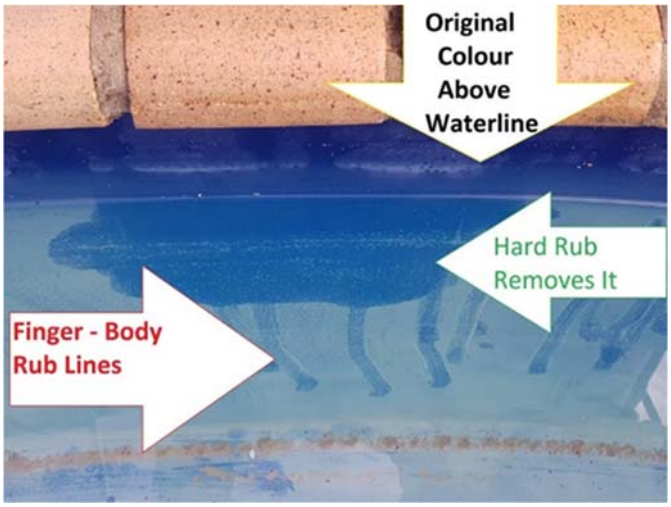
Hitchins 1932 TECHNOLOGIES

Performance Through Technology and Service

INFO SHEET

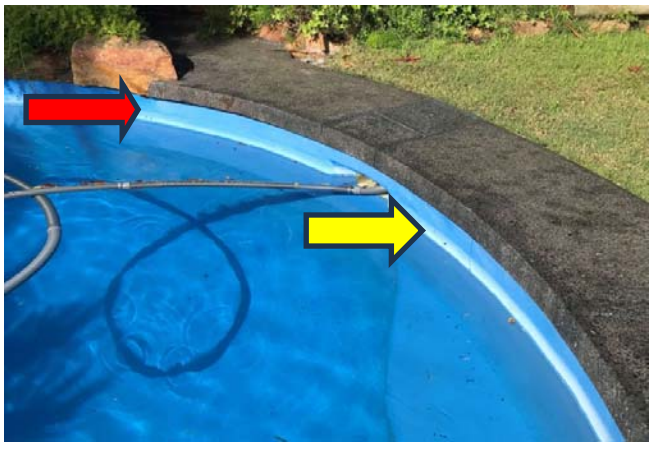
Removing Mineral (Calcium) Buildup on Pool Surfaces

Sometimes you will notice a “white” build up on the pool surface, usually below the water line and maybe a very light gloss reduction above the waterline. This is more noticeable on dark colours and more often found with salt chlorinated pools.



Calcium residue on your fingers when drawn over the surface below the waterline.

If you see this happening, talk with your pool shop, the contractor or call us, to resolve the situation. Left unattended it will become much harder to deal with.
In most cases when no worse than the image a flocculating agent will suffice.



A typical result of a white build up on pool surfaces below the water line. Yellow arrows. And non affected areas above waterline, Red arrows.

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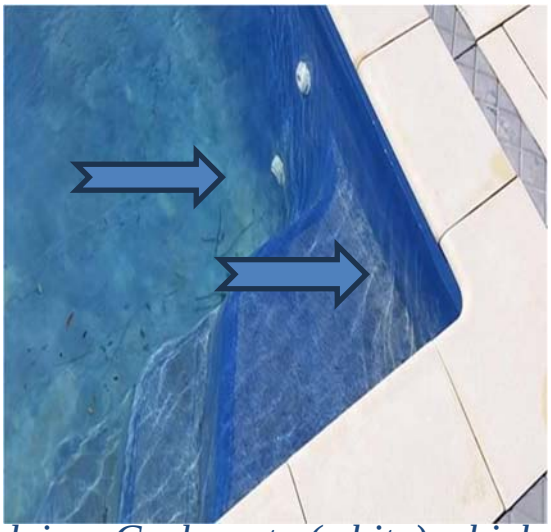
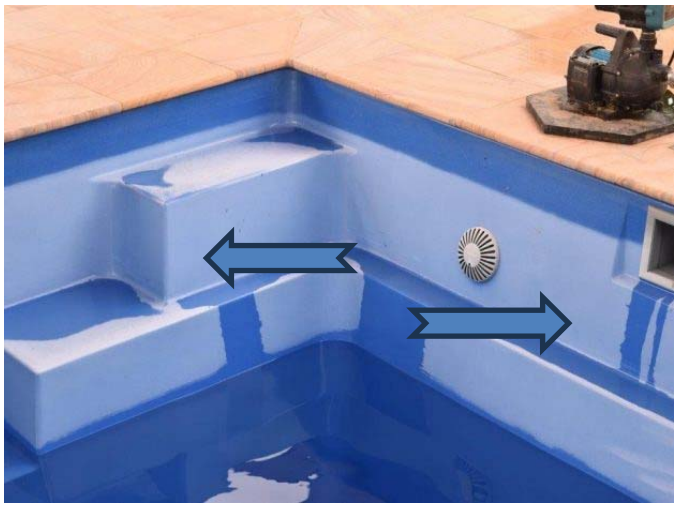
There are 2 types of scaling.



Calcium Carbonate (white) which is flakey and fairly easy to take off.



Calcium Silicate (white – grey), is slower to form and is hard.

You can detect which form you have by carefully putting a few drops of Pool Acid (HCl) on the white surface. Wear protective goggles and gloves. Calcium carbonate will bubble – fizz, whereas the Silicate version will not react. Contact pool shop for added advice.

1st step, Using a flocculating agent for Calcium Carbonate:

Discuss with your pool shop. Usually, a **flocculating agent** will do the job. Note there are two **Types: Aluminium Sulphate (Alum) and Synthetic Polymer** and either one may work.
Undertake this treatment first, to remove all or most of the calcium residue.
Make sure you follow the instructions **exactly** on the container, especially if the pH change is needed. Otherwise, the result will be very disappointing.

You may need to try both type of flocculating agents. One after the other. If not successful, then it may be that Total Dissolved Solids (TDS) is too high and the pool needs to be partially emptied to remove water and some of the TDS and replaced with clean water. Only further testing will confirm this last approach as being needed. Discuss with your pool shop first.

2nd step: Remaining or hard calcium build up, use Epsom salts (Magnesium Sulphate) *Can do in cooler months when not swimming in pool.*

This process has been found by others to be quite effective though it will take a few weeks to see the results.
Have pH at 7.2 – 7.4 and keep it there. Add Epsom Salts at the rate of 1kg per 10,000 Litres of pool water (approx.). Pre dissolve in a bucket of pool water. Leave the pool pump on its normal cycles to filter water. Salt water chlorinated pools reduce Cl levels to around 1 ppm, just to keep pool water bacteria free. (or turn chlorinator off if you can, and add some liquid chlorine as needed, is the best idea)

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No Swimming. Monitor every few days, by brooming a small area and see if the calcium is softening. (Can take up to 2 – 3 weeks to be completely effective) When it is soft enough to remove all, then proceed to broom entire surface, and vacuum to waste.
To speed up surface cleaning consider the use of a water blaster with you in the pool! Yes.

Also, Cal Stop (International Quadratics) has been found to be effective as well. (as cleaner and preventive) Refer to your pool shop.

Using abrasive means for Calcium Silicate:
The only way to remove this harder version is by pumice stone and a lot of effort. This is hard and well adhered to the surface. It's very difficult to scrub off. And if you have a fibreglass, vinyl or painted pool surface, you run the risk of damaging the surface while using the pumice stone. (Invalidating the warranty)
However, your pool shop should be able to provide a specific additive to remove the deposit, but it will take months to slowly dissolve the calcium silicate.

3rd Step Clarifier Usage.
Having used steps 1 and /or 2, you may still find cloudy water after running the filtration system for some hours. This means there are still very fine particles in the water which are too small for the filter to remove, and it just re circulates them all. So, you need to consider using a clarifier which generally you pour into the pool as you walk around and with the filtration running. This will slowly bind the small particles into bigger ones that the filters can now remove. Note if you have a cartridge filter check often to be sure it is not blocked. Allways follow directions on package.

Why do I get Scaling?
Pool scale is the formation of mineral deposits on your pool's surface and is generally caused by high calcium levels. When calcium saturates the water, minerals deposit on the pool's surface and can even clog equipment. Salt water chlorinated pools suffer more as the salt contains insoluble impurities which can also cause scale.
Also, hard water, high temperature (evaporation), sudden water temperature changes (summer to winter or vice versa) and incorrect pH can all be contributing to the scale formations. Cloudy water is a good indicator of pending scaling.

How To Prevent Scaling:
The best answer lies in correct and continuous pool water management. This means being on top of it 24/7. If it gets out of balance, even for day, issues can start, and then remedial action is needed. Usually taking time and money.
Regular pool water testing is best and then discuss the result with your pool shop.
Keeping the Langelier Saturation Index (LSI) in the range of -0.3 to + 0.3 **always**, will ensure your pool water is balanced. Ask your pool shop about LSI. They need to know and fully understand it. If not contact us for details so you know at least and can oversee your pool and save heaps of money and time.

Questions: contact us or your pool shop for more advice and answers.
You can also consult: poolstainremovers.com

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