

Patios and their Maintenance

By Marcus Fulker - Jan 2014

I have lived at my house in the Perth hills for 7 years. I built a few patios around our house not long after moving in. Up until last week I had done zero maintenance on my patios in that time. They were starting to look a little rough. A patio, like anything, requires some form of maintenance to keep it looking good.



(Pictures showing 2 sections of patio that have not been cleaned in 7 years)

*So after 7 years, this is how my patios were looking. There are 2 main visual items you can see; **white rust** starting to form on the powder coated zinc steel and **mould staining** on the colorbond sheets. Both very ugly and are totally due to the lack of maintenance.*

Why do these occur?

These faults occur due to a combination of salt, dust, moisture and time. Increase any of these factors and the detrimental effects also increase. Even living in the Perth Hills, we are exposed to high levels of salt in the air. Strong sea breezes bring moist salt air hundreds of kilometres inland. Simply however, the closer to the coast, the more salt in the air. The easiest way to prove this is to notice where the rust on a patio forms without maintenance. It always forms on the seaborne (western) side of the patio. As you move along the patio to the east, the less rust forms.

The moist salt air sticks to the dust which has built up on the steel. The deposited grime absorbs moisture like a sponge and holds it against the powder-coated surface; this permits corrosive attack to proceed, thereby damaging the coating.

How do I stop it from happening?

By washing the patio with some elbow grease is the best method I know of. Not the most fun, but the most effective. A relatively mild scourer works best, with a bucket of mildly soapy water. I used cold water but like washing dishes, warmer water usually works better. A pressure cleaner is better than nothing, but they still don't remove the grime as well as a scourer does.

Rub the whole patio down with the scourer and rinse regularly with fresh water as you go. It is far from a romantic job - hence why I, and nobody else I have ever known, does it. I chose a nice hot day to do it, knowing I was going to get pretty wet trying to wash down something above my head.



(Pictures of the same areas of patios after simple cleaning with a scourer and water)

An even better solution, if you have the time and inclination, is to use a polish that you would use on your car. A cut and polish of the patio steel will not only bring back some shine to the steel, but being smoother, stops dust sticking the patio, (which absorbs the salt and moisture). Much like a car, the more love you put into the patio the better it will look. Although this all sounds like a lot of work, steel is still a superior product to use than timber, which needs constant painting to look good.

How Often do I have to do this?

By rubbing the dirt, mould and rust build-ups then rinsing in fresh water, I was able to bring back a patio that had no maintenance in 7 years back to what looked pretty darn near new again. IF I washed the patio down even yearly, it would look much better again.

The formal recommendations for the frequency of cleaning are as follows:

1. In mild and moderate environments where grime deposition and pollution are at a minimum, **cleaning every six months** may be sufficient to remove deposits and restore the appearance.
2. In industrial and marine environments, **monthly cleaning is advisable**; however, the maximum period between cleanings should never be more than three months. Under the worst conditions involving heavy grime deposition and atmospheric pollution by both sulfur compounds and chlorides, even more frequent cleaning is advisable if deterioration of the coating is to be prevented.

How about a Warranty?

A warranty is a very tricky word in the steel industry. How long is something supposed to last? What is an acceptable level of decay? How well has it been maintained? The simple matter of the fact is the big steel companies who we buy our steel from - Colorbond, BlueScope Steel, Onesteel and Orrcon Steel - don't really offer warranties. Try finding them

on their websites. They are very well hidden, if you can find them at all. Then if you do find any mention of them, the information is very vague at best.

All I have ever been able to find is some technical bulletins on the colorbond website. <http://steelproducts.bluescopesteel.com.au/category/technical-bulletins> This is very good info, but when you dig into them, they are all basically saying you need to maintain your steel. Keep it clean with fresh water, clean the dust and salt build up off and you will have good looking steel products for a very long time.

I have been in the patio business for over a decade. I never want to see any of my customers unhappy with the products we sell. But unfortunately without this maintenance it is only a matter of time before the steel will look very average. And the closer to the coast you live, the quicker it deteriorates.

Repairing when beyond a simple clean?

If the steel in the patio is beyond a simple clean, all is not lost. Most of the corrosion is just superficial and generally won't affect the structural integrity. (If you have any doubt, have an expert look at this though).

By grinding or sanding down the loose particles from the steel, you can prepare the surface back to bare metal. When back to bare metal use a solvent such as 'Shellite' which cleans the surface and evaporates quickly. Once the steel is clean, a zinc rich primer should be applied for a few coats. You will find these in pressure packs from Bunnings. This primer does the job of sealing the bare metal and protects it from further corrosion.

After a few coats of Primer have dried you can then apply the finishing colour. All Colorbond colours can be found at Bunnings in pressure packs. This final coat is more for aesthetics, not for metal corrosion protection.

An old patio can have a new lease of life again with some elbow grease and a bit of love.

Relevant technical Bulletins:

- TB2 - Overpainting and Restoration of exterior Bluescope steel products
<http://steelproducts.bluescopesteel.com.au/files/dmfile/TB2NextGenSept2013.pdf>
- TB4 – Maintenance of Colorbond Steel and Zinalume Steel
<http://steelproducts.bluescopesteel.com.au/files/dmfile/TB4NextGenSept2013.pdf>
- TB5 – Swarf Staining of Steel profiles
<http://steelproducts.bluescopesteel.com.au/files/dmfile/TB5Aug2013.pdf>
- TB10 – Cut Edge and Bend Protection
<http://steelproducts.bluescopesteel.com.au/files/dmfile/TB10Aug2013.pdf>

