

Why do porcelain patches not last in the bottom of a sink?

Last Updated: Tuesday, June 4th, 2013, Created: Wednesday, May 19th, 2004

When you drop a sharp object on porcelain finished sinks or appliances, often a chip of the porcelain will pop off. This can be patched with porcelain touch-up kits. But in the bottom of a sink the porcelain seems to pop off without dropping anything, and the patch never seems to last. That is because the original porcelain was forced up from the expansion of the metal below. If you look at the second photo above you will see that the overflow passageway has traditionally been a piece of metal welded onto the sink prior to the porcelain finish. This metal is then coated with an anti-corrosion coating -- but unfortunately it does not last forever. The relatively constant presence of water in the bottom of the overflow passageway eventually manages to get to the weld and starts to rust. It is this rusting metal that expands and pushes off the brittle porcelain above, and eventually pushes off any patch you may apply. No matter how well you do the job from the top, the bottom is in the process of rusting out. If you look closely at that second photo you will even see the little white deposits of calcium starting to come out through the welded and sealed area. This sink is close to dead. The third photo shows the modern replacement sink. The first time I saw this my first reaction was along the lines of - 'they don't make them like they used to'. That plastic overflow passageway simply siliconed into place sure looked cheap to me. That was until I realized that they removed the inevitable source of corrosion, the weld. They replaced it with something quite strong enough for the job (there is never any pressure on the overflow passageway) that will never corrode. This piece of plastic is actually an improvement over the old sinks.

Keywords:

Refinishing, Rust, Repair, Porcelain, Bathroom, Sink