

ABOUT ZINC SALTS AND UNLIMITED RECOAT INTERVALS

MCU-Coatings zinc and miozinc primers have an unlimited re-coat interval, which means that they stand apart from most conventional polyureas and epoxies.

Typically, when zinc flakes, or particles are exposed to the atmosphere, zinc salts form on the surface. This is a white powder, which initially is barely visible to the naked eye. The build-up of salts is quite prevalent on galvanised steel and is also found on most inorganic and epoxy zinc coatings, due to the size of zinc flakes and the porosity of the coating itself.

There are many good zinc coatings, however they are usually difficult to apply and require a SA 2.5 prepared surface with a shallow surface profile which can lead to mud-cracking and premature failures.

Interestingly, our MCU-Coatings zinc primers do not form zinc salts, even when exposed for many months in C5 coastal atmospheres. The primary reason is MCU resins have a much tighter matrix and are not porous because of the particle uniformity and micro-sizing of our zinc additives, which ensures the zinc particles are suspended and covered with resin. It is only when the coating is mechanically damaged, and the zinc particles are exposed, that they become anodic and protect the steel in the damaged area, which is one of the many reasons why our coatings perform so well over extended periods.

Furthermore, the resin and fine particle-sized micaceous zinc do not allow moisture, airborne salts, or other contaminants to penetrate the coating or undermine the adhesion bond. This means that when MCU-Zinc and MCU-Miozinc are properly applied they outperform both inorganic zinc and hot-dipped galvanizing over an extended period.

Both our MCU-Zinc and MCU-Miozinc primers are surface tolerant and tolerate light flash rust, the Miozinc slightly more so because the addition of the Mio increases the barrier effect and improves the coatings' adhesion.

Both MCU-Zinc and MCU-Miozinc can be applied up to 250µm 200 – 250 DFT, depending on the climatic conditions, and they are not prone to mud cracking or premature failure. They are also more tolerant to salts or chlorides on the substrate (<70 ppm) than most conventional 2-pack epoxies and polyurethanes.

Just one more reason to join the MCU revolution