

Water saturation of the last ZINGA layer

We have experienced that the performance of ZINGA as a unique system can be improved by using the technique of water saturation.

The technique of water saturation implies that fresh water should be sprayed at very low pressure like a mist on the last ZINGA application until the ZINGA is completely saturated with water. Saturation of the coating can only be obtained by wetting all surfaces several times until no more water is absorbed by the coating. The colour will be uniformly dull grey. If the ZINGA has been applied in 1 coat, then you have to wait 2 hours and if the ZINGA has been applied in 2 coats, then you have to wait 4 hours in order to give the ZINGA enough time to dry (at 20°C in a well ventilated space).

This procedure will improve the performances of the ZINGA. It will accelerate the formation of zinc salts and zinc carbonates on the surface that offer a barrier protection, and it will also make the coating harder.

Another advantage of this technique is that it will also avoid the formation of dark spots on a freshly zingatised surface, due to rain or humidity. This will not solve the problem for 100% but it will certainly make the spots less explicit. As you know, the total ZINGA surface will gradually become darker in the course of time and the spots will disappear anyway. By the way, hot-dip galvanising also often encounters a problem of blotching as a result of anomalies in the cooling process after the thermal treatment.

This technique of water saturation is not a must for ZINGA. ZINGA does not need humidity to polymerise, but it does tolerate humidity, unlike many other coatings!

Blotching on Zinga

The appearance of stains or blotching on Zinga is a well-known and at the same time a quite normal phenomenon. It is a fact that high zinc content systems such as Zinga, often show a very natural reactivity with the environment. The higher the zinc content the higher the reactivity.

There are 3 phases in the polymerisation process of Zinga :

1. A brand new Zinga application shows a completely even, light grey colour.
2. After a while the Zinga layer shows a variety of light grey and dark grey.
3. In the end the Zinga will get a dark grey aspect.

Shortly after drying, the Zinga can get a white colour. This is due to the environmental circumstances (humidity, temperature, atmospheric pollution, proximity to the coast, ...). This white colour does not affect the quality of the system. On the contrary, it is a sign of a complementary protection : the so-called patina or passive protection of zinc salts. These zinc salts can be removed by cleaning with fresh water and a nylon brush.

If drops of rain fall on a new Zinga layer, then the surface will show some blotching. Dark spots will become visible on the light grey surface. This does not influence the quality of the Zinga, but if you want to avoid this, then you should spray fresh water on the last Zinga application. This is called the water saturation technique. It will not solve the problem for 100% but it will certainly make possible spots less explicit. As you know, the total Zinga surface will gradually become darker in the course of time and the spots will disappear anyway.

Hot-dip galvanising also often encounters a problem of blotching as a result of anomalies in the cooling process after the thermal treatment. The hot-dip has to deal with a quick thermal shock from 455°C to the environmental temperature. The shiny appearance that hot-dip has in the beginning, will slowly change to a dark grey colour.

Zinga in contact with potable water

Before bringing the Zinga in contact with potable water, we recommend to saturate the last layer with water and to immerse the coated surface in water for approx. 24 hours.