



# Anti-corrosion protection for cable support systems that have been hot-dip galvanised pursuant to DIN EN ISO 1461

**We hereby certify that our cable support systems are hot-dip galvanised pursuant to DIN EN ISO 1461.**

When steel profiles are subjected to hot-dip galvanisation, they will be completely covered by the liquid zinc alloy at a temperature of 450°C. In the process, the zinc will react with the iron, thus causing stable iron-zinc alloy phases to form. This reaction will begin immediately after the profiles' submersion into the liquid zinc alloy has been completed: the zinc-covered surface will begin to form surface layers that, at the end of the process, mainly consist of alkaline zinc carbonate, which is generally referred to as the "patina." This patina is the basis for the long-term protection that the zinc coating affords against the atmosphere; it will take between four weeks up to half a year to form, depending on the conditions of its environment.

If the zinc surface comes into contact with water or is located at a site with high humidity during this period, and/or if the air circulation is inadequate and thus prevents the surface from having sufficient contact with CO<sub>2</sub> (e.g. because the profile has been foil-wrapped), this will impair the formation of the protective surface layers and may even entirely prevent it. In such event, the galvanised components will develop what is known as "white rust" – a powdery white deposit consisting mainly of zinc hydroxide, with bits of zinc oxide and zinc carbonate mixed in.



Small amounts of white rust will not need to be removed. It is transformed into a protective covering layer as soon as the conditions triggering its formation have ceased to exist

Pursuant to DIN EN ISO 1461, the formation of white rust does not constitute grounds for rejecting the goods, provided the layer thickness does not fall below the minimum defined.

In cases in which white rust is considered an aesthetic detriment, it is possible to remove it using mechanical or chemical methods.

For mechanical cleaning, we recommend scrubbing brushes or scouring pads, but not wire brushes. It is also possible to use a random orbital sander in order to remove older white rust.

As a chemical method, we recommend zinc cleaner; this should be thoroughly rinsed off following a short reaction time.

We hereby assure that the above-referenced zinc patina will form in the course of the first weeks and months on material that has been mounted at a well-ventilated site. In the course of that same period, the slight white rust that may have formed will cease to be visible and the zinc will take on its usual, dull grey colour.

PUK Group GmbH & Co. KG

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