## Your trailer has been hot-dip galvanised to ensure a long service life

Hot-dip galvanising is a well-proven method of protecting steel against corrosion (protection against rust), which extends significantly the service life of the product in difficult external conditions.

During hot-dip galvanising, steel is immersed in molten zinc, which causes a reaction between steel and zinc. The zinc layer is therefore not applied (through painting), but rather chemically and physically bonded to steel. Because this is a chemical reaction, the appearance of the zinc layer may vary slightly depending on the type of steel used.

Zinc is in fact a base metal with a high tendency to corrode. The fact that the speed of corrosion is rather slow in most environments depends on the fact that the zinc layer is rapidly coated with corrosion products, which then protect the surface from further reaction.

## And it happens this way...

- \* When a newly galvanised product comes into contact with air, zinc oxide is first formed.
- \* Zinc oxide reacts with water and carbon dioxide in the air.
- \* As a result of this reaction, basic zinc carbonates are formed on the surface.
- \* Zinc carbonates are very stable and protect the surface from further corrosion.
- \* In order to ensure the zinc stability, it is important that the zinc carbonates are allowed to form.



A newly galvanised product is often shiny.



The surface becomes a little duller after some time of use.

## Sometimes white corrosion or so-called "white rust" can appear on the zinc surface...

White corrosion is a clear, sometimes mealy, large-volume coating, which forms, when a newly galvanised product is exposed to condensation, moisture or liquid, which remains on the surface.

White corrosion is large in volume, about 500 times greater than volume of zinc layer, on which it forms. This means that the action may be serious and gives the impression that the whole zinc layer has been consumed. Nonetheless, white corrosion has little or no effect on the service life of the product and is only an aesthetic problem.

White corrosion is most noticeable, when the trailer is new and especially on shiny surfaces. White corrosion wears off over time under the influence of weather and wind, and then the surface is covered with a stable matte grey layer.

*Road salt* is aggressive towards most metals, including zinc. First of all, when the trailer is new and the zinc layer has not yet been completely passivated, the surface may be attacked, when the trailer runs on salt-sprinkled roads.



The surface of the hot-dip galvanised trailer, where white corrosion has developed, when the trailer has been exposed to road salt.

## The ways to reduce the risk of white corrosion on your new trailer:

Rinse the trailer after driving on salty roads. It is best to use warm water under high pressure. Rinse the trailer as soon as possible after being exposed to road salt.

Avoid parking the trailer in deep stitch or tall grass, which will expose the trailer to moisture for a long time without being able to dry out.

Do not allow water or snow to remain on the metal surface.

In order to remove the resulting white corrosion, rinse under high pressure, preferably with warm water, and then wipe with a sponge or cloth.

Do not use chemicals (for example rim polish) on hot-dip galvanised surfaces. This may stain zinc a dark colour and make the surface look unsightly.

You can use stainless steel wool or a stainless steel brush in order to remove the resulting white corrosion. Remember, however, that the surface may scratch, which will cause permanent damage.

White corrosion will disappear on its own over time, when the trailer is exposed to weather and wind. The amount of zinc, which in effect disappears from the surface, is so small that it is negligible in terms of service life. According to the hot-dip galvanisation standard EN ISO 1461, white corrosion on a hot-dip galvanised product does not constitute grounds for a complaint.

Over time, the zinc surface acquires a more due to the fact that a passivating carbonate layer is forming on the surface. Zinc is then very stable and resistant. The passivation process may take variously long depending on external conditions such as temperature, air humidity, pollution, etc.