

## Troax guide for Hot Dip Galvanize

This document describes Troax AB's products in Hot Dip Galvanized (hereafter called HDG) finish.

### Process:

HDG is one of the most effective ways to protect iron against corrosion. HDG is done by dipping the iron parts i.e. Troax mesh panels and posts in liquid zinc at 450-460°C. In doing so, there is a reaction between the two metals (iron and zinc), which gives a very strong adhesion. The alloy is so strong that the products can be transported and handled without the coating being damaged.

The result of galvanizing process is dependent on how pre-treatment is made. Processing oils are removed in an alkaline or biological degreasing bath. After this "acid bath" products are coated with a flux that prevents anew oxidation of the iron surface and makes contact with the zinc in the subsequent HDG bath. After galvanizing, the products are cooled and processed for removal of zinc clusters, sharp spikes etc.

Troax products are HDG according to the **EN ISO 1461:2009**.  
Below a short summary of this standard:

### Standard EN ISO 1461:2009:

*The occurrence of darker or lighter grey areas (e.g. a cellular pattern of dark grey areas) or some surface unevenness shall not be cause for rejection. The development of wet storage staining, primarily basic zinc oxide (formed during storage in humid conditions after hot dip galvanizing), shall not be cause for rejection, providing the coating thickness remains above the specified minimum value.*

### Note

*In certain circumstances for example, where the galvanized article is to receive a further treatment or application of additional coatings, the purchaser might ask the galvanizer*

- a) *Not to quench the article, and/or*
- b) *To take measures to prevent the formation of corrosion products on the surface of the galvanized coating during storage and transport.*

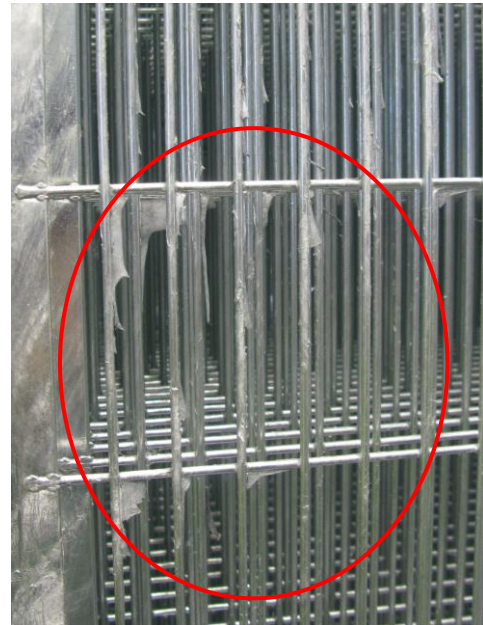
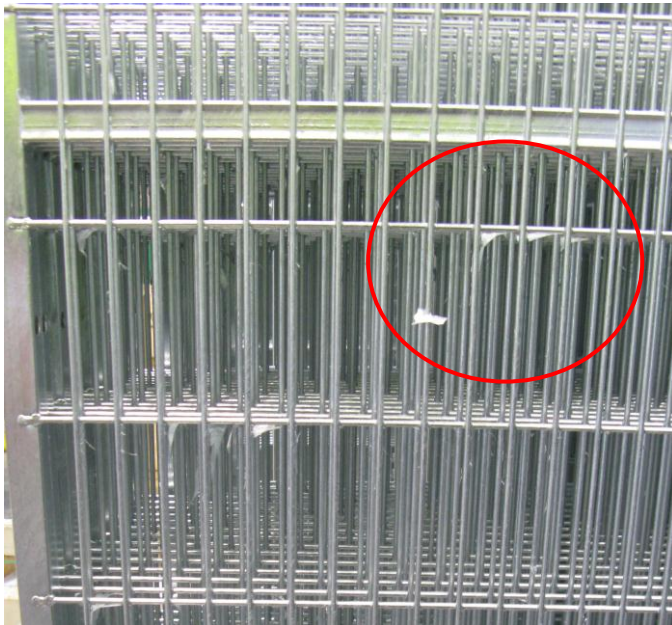
*Flux residues shall not be permitted. Lumps and zinc ash shall not be permitted where they may affect the intended use of the hot dip galvanized article or its corrosion resistance requirement.*

### HDG by Troax:

In practice this means that flakes are allowed on Troax mesh panels according to the EN ISO 1461:2009 standard. Simply because these flakes in no way affects the corrosion resistance.

White rust is also allowed since it is a part of the HDG process and does in no way reduce the corrosion resistance i.e. it is only an esthetical issue that is almost impossible to determine on beforehand. It all depends in the iron compound of the material that is exposed to HDG process.

Below some pictures of how Troax products can look like after HDG process, all of them approved according to the EN ISO 1461:2009 standard. Flakes, white rust and uneven surfaces all occur on our HDG treated products.



Flakes on mesh panel ST20 and UX450.  
Approved appearance according to EN ISO 1461:2009.

To avoid flakes, goods can be ordered "flake free" with an extra charge and delivery time.

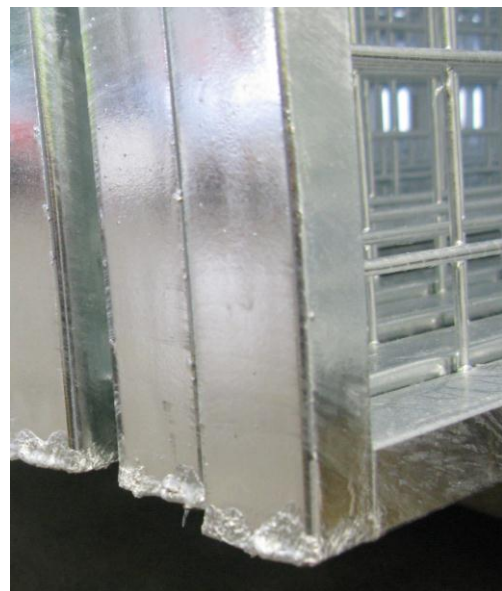
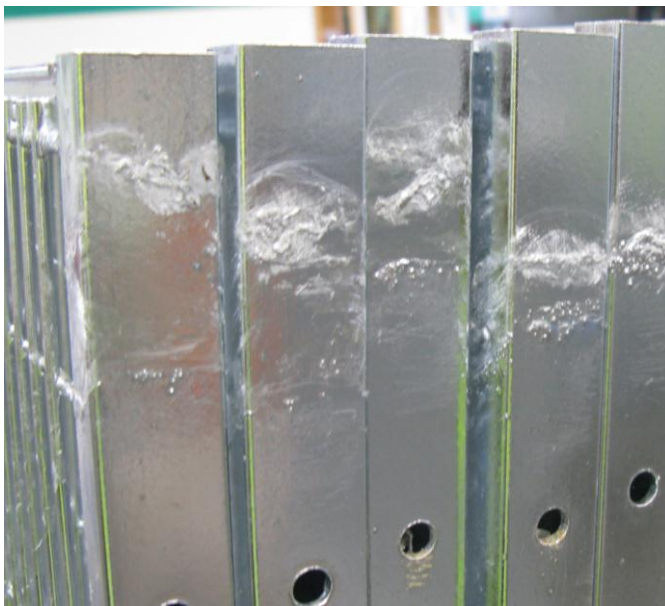




White rust on 60x40 post.  
Approved appearance according to EN ISO 1461:2009.



Darker and lighter areas on ST20 panels and foot for 60x40 post.  
Approved appearance according to EN ISO 1461:2009.



Surface unevenness on tubes, lumps and residues, residues at the dripping edge that does not affect the intended use are approved appearance according to EN ISO 1461:2009.



