

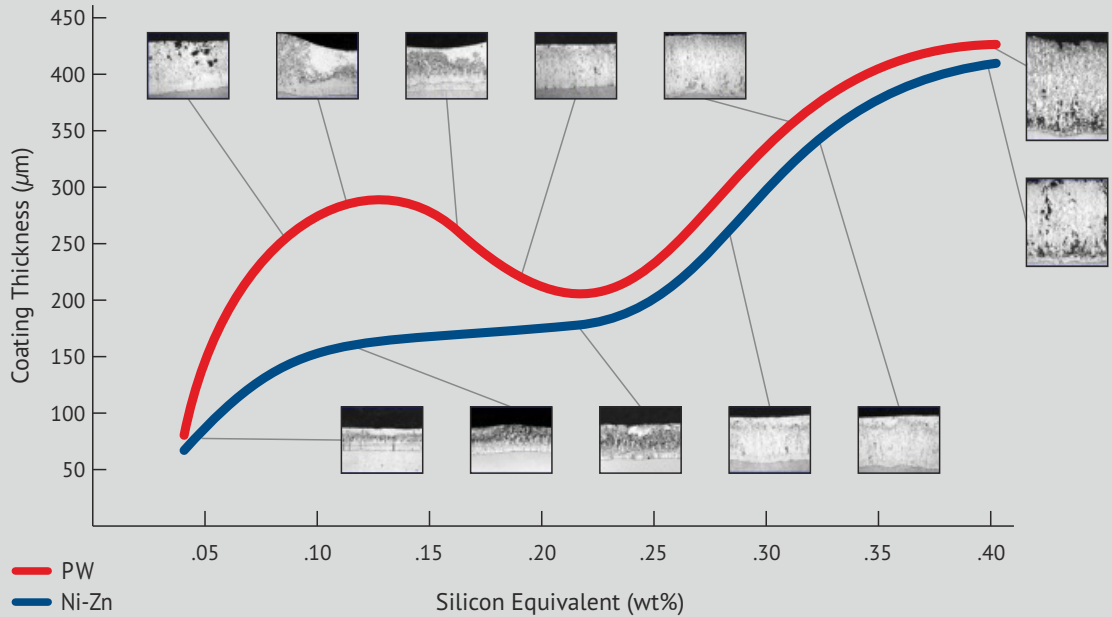
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NICKEL TABLETS

Effect of Nickel on Coating Thickness (Sandelin Effect)

Galvanized at 455°C for 8 minutes



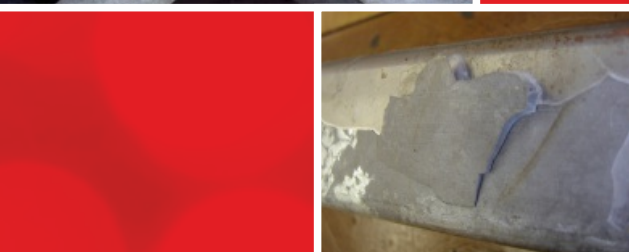
The highest zinc coating is reached when the silicon in the steel is 0,04 to 0,12%, this range is called the "Sandelin Curve".

From this graph, it can easily be seen that in the Si killed steel, the example is 0,26% silicon, the coating thickness increases directly proportional with time, whereas in the unkilld steel, this increase is very slow. And even after 2 minutes dipping, the coating thickness is double in Si killed steel.

Why Nickel?

- Reactive Steels;
 - Prevents high coating thicknesses.
 - Prevents growth of Fe-Zn alloy layer.
 - Prevents dark grey coatings.
 - Prevents peeling of coating.
 - Increases the coating homogeneity.
- Zinc saving from 5% to 15% in weight.
- Increases coating ductility.
- Smoother and brighter surface finish.
- Increases the fluidity of the Zn bath.
- Aesthetical coating appearance.

Sandelin Effect

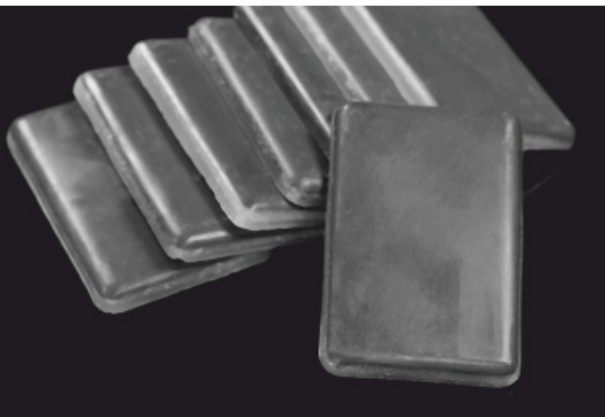


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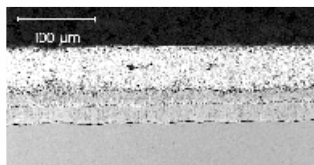
Coating with Nickel



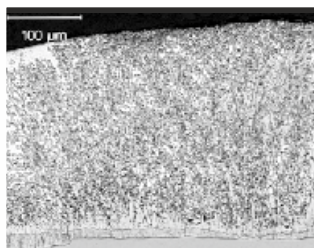
Why Nickel Tablet?

- Less Nickel using up to 30% compared to Zinc-Nickel alloy ingot and powder Nickel applications.
 - Zinc Nickel Alloy Ingot, 1.7 kg Ni addition per ton Zinc.
 - Nickel Powder 1.8 kg Ni addition per ton Zinc.
 - Nickel Tablet, 0.75 - 1 kg Ni addition per ton Zinc.
- Removes workmanship from the nickel joint.
- The implementation is very simple and fast.
- No special expertise or tools required.
- Nickel floats on the surface of the zinc bath more than other methods, therefore does not settle down to zinc ash and dross.
- Nickel automatically dissolves in zinc bath.
- No dependency on purchasing of HG / SHG Zinc.

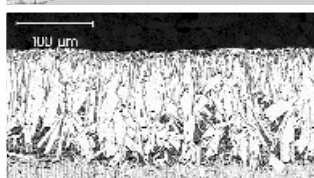
Normal coating



Bearded coating



Reactive coating



Why ANI METAL Nickel Tablet?

- Others: Nickel + Wax
- ANI Metal: Nickel + Wax + X (X is our "know-how").
 - ANI Metal tablets create more heat shield when burn off therefore they prevent consumption by oxidation.
 - Increases the solubility in zinc.
 - Prevents the precipitation to dross.