Greater protection

Innovative surface finish protection for steel profile systems



For our customers, nothing changes. Except that our products become better and better

Zinc-iron alloys replace zinc coatings

As an innovative technology company, Jansen continuously offers its customers added value not only by developing new solutions, but also by optimising the existing range. This is also the case with the surface quality of the steel profile systems for windows and doors.

What has proven its worth over many years in the automotive sector is now being used in the construction industry for the first time: galvannealed steels with a zinc-iron layer (ZF).

We are the first supplier of steel profiles to exploit the many advantages of the galvannealed hot-dip coatings and are hence gradually replacing the current Z 275 coatings for the basic corrosion protection of all steel profiles with ZF 100 from April 2016.

Steels for use in construction with a ZF coating are alloyed in a two-pattern hot-dip coating process. This special coating has an iron content of 8 to 11%, which increases the ease of fabrication. Following the zinc bath (for the proven corrosion protection), a targeted heat treatment transforms this coating from zinc and iron into a ZF alloy coating with a defined microstructure by means of interdiffusion.

The harmonised European standard EN 10346 «Continuously hot-dip coated steel flat products for cold forming - Technical delivery conditions» defines the requirements for steels for use in construction with zinc-iron alloys.

The changeover will not affect prices and the existing article numbers will remain valid. The technical delivery conditions of hot-dip coated steel flat products, both for Z 275 coatings and ZF 100, are harmonised in EN 10346 so that essential requirements in terms of safety, intercompatibility and the durability of the products are guaranteed.



Our innovation for your benefit. Performance advantages of the new alloy coating ZF 100.

Comprehensive corrosion protection

The ZF alloy coating provides temporary protection against red rust. Jansen profiles are therefore optimally protected against the effects of the weather from storage to fabrication and coating on the inside as well as the outside.

Optimised surface quality

The particularly defined microstructure of the ZF alloy coating forms an adhesive protective layer on the steel and is characterised by a uniformly fine-grained crystal structure with a high surface quality and optimum coating adhesion.







Weld seam with Z 275 surface finish

Considerable simplification in fabrication

• First-class welding characteristics:

The innovative surface finish combined with a lower coating thickness leads to less pore formation, less smoke and fewer sparks when welding.

• Efficient frame production:

Thanks to the optimised welding behaviour, post-processing steps are also reduced (welding pores shut, linishing etc.), which contributes to faster and therefore more productive fabrication.

Outstanding coating adhesion:

Excellent suitability for coating with wet paint and powder coatings and even more reliable fabrication in the coating process are guaranteed. The existing Z 275 products can be combined with ZF 100 in any way without visual differences.

• Increased efficiency:

The galvannealed surfaces allow our customers to work with simplified, more energy-efficient and less labourintensive process steps and lead to higher process reliability.

Reduced load

• Environmentally friendly:

The reduced consumption of materials and energy, the halving of the coating thickness as well as the dispensation with chemical passivation conserve natural resources and protect the environment.

• No use of chemicals:

Chromium-free and without any harmful components, conformity with the European legislation on chemicals REACH is assured.

With the changeover to ZF 100, we guarantee you increased protection for the profiles whilst also offering you even more fabrication benefits. Following extensive and successful fabricator testing with customers in Switzerland, Germany and Austria, we are convinced that the galvannealed hot-dip coatings are the most innovative response to the increasing demands of our customers on steel profile systems. See for yourself.

ER.

The new material specification: S250GD + ZF 100A

You can also benefit from this new material

- Steel grade S250GD with yield strength ≥ 250 MPa
- Zinc-iron metal coating with a minimum layer mass of 100 $\ensuremath{\text{g/m}^2}$
- Average layer thickness of 5-12 μm in accordance with EN 10346
- Surface type A: matt, spangle-free surfaces

You can find out more about this new surface finish protection on our homepage via the following link:

www.jansen.com/zf100







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