

# Powder coating galvanized steel

- What is powder coating?
- Prepare galvanized steel for powder coating
- Colours, applications and standards for powder coating metal

Powder coating is a fast growing method of adding colour to metal surfaces. Like galvanizing, it is carried out under carefully controlled conditions in a factory. For this reason the maximum size of the steel fabrication to be powder coated will be limited, but powder coatings can be applied successfully to hot dip galvanized surfaces.

## How to prepare galvanized steel for powder coating

The thermal characteristics of galvanized steel are almost identical to those of ungalvanized steel for powder coating purposes and there are many examples of steel which has been galvanized and then powder coated.

However, when powder coating metals, the pre-treatment of the galvanized surface will depend upon which of the many powder types such as polyester, epoxy, or hybrid is being used. This usually includes a form of chemical pre-treatment such as chromating or phosphating, gentle heat treatment, followed by application of the powder.

The successful application of a powder coating to any metallic surface requires the multi-step instructions provided by the powder manufacturer to be respected in every detail. For this reason an experienced or approved applicator should be asked to do the work.

## Colours, applications and standards for powder coating steel

Duplex Coatings

For powder coating metals, just like with wet painting, a full range of colours is available. Powder coating galvanized steel for architectural applications is covered at present by EN 13438. EN 15773 'Industrial application of powder organic coatings to hot dip galvanized or sheradised steel articles (duplex systems) – Specifications, recommendations and guidelines' provides additional information concerning communication within the supply chain and reaching agreements on quality related issues.

It is important that the galvanizer is advised that work is to be subsequently powder coated and post-galvanizing treatments agreed with the powder coater.

A limited number of direct application products are now available for use on galvanized steelwork. Given adequate preparation work, the use of direct application paint negates the need for any chemical or mechanical pre-treatment to be conducted. These products are known to have been used in a variety of applications.