

Overview

Zingard can be best compared to Hot Dip Galvanizing (HDG) as both rely on the cathodic protection properties of Zinc in order to protect the steel substrate from corrosion. Although comparable in the protection they give, Zingard has a number of critical advantages over HDG that this document aims to highlight.

Advantages

- Unlike Hot-Dip Galvanising which produces both toxic effluent and air pollution, Zingarding is a “green” process with no hazardous by-products.
- Unlike HDG whose maximum component size is dictated by the bath dimensions, Zingarding does not have any component size limits.
- Unlike HDG which requires very high temperatures, Zingarding is a cold process so there is no fear of distortion in thin materials or long components.
- Unlike HDG, Zingarding does not present any potential hydrogen induced cracking to load bearing welds.
- Unlike HDG, welded and sealed sections, tubular sections and tight back-to-back angles do not have to be drilled for degassing when Zingarded.
- Unlike HDG, Zingard produces a totally flat surface finish with no hazardous “snotters” or sharp zinc spikes.
- Unlike HDG, metal that has been coated with Zingard can be welded to X-ray standard without the need to grind the edges.
- Unlike HDG, Zingarded metal can be directly over-coated with a wide selection of paints without the need for any costly preparation.
- Unlike HDG, Zingarded surfaces can have their cathodic protection “reloaded” at any point in the future with further coats of Zingard.
- Unlike HDG, Zingard can be applied on site and therefore components do not require to be dismantled or transported.
- Unlike HDG which becomes hard and fatigues, Zingard can withstand unlimited cyclical vibration.
- Unlike HDG which is brittle and can delaminate, Zingard is flexible enough to allow Zingarded sheet to be formed into shape *after* it has been coated.
- Unlike HDG, Zingard is certified as non-flammable to BS476 parts 6&7 and when exposed to extreme heat it produces very low levels of smoke with corresponding low levels of toxicity.
- Unlike HDG which has a limited pH tolerance of pH5-pH9, Zingard can tolerate contact with substances with a pH range of pH3-pH11.
- Unlike HDG which becomes increasingly porous, fully cured Zingard continuously blocks the zinc pores with carbonates and oxides thus creating a constant resistance to saline attack.

Disadvantages

- Unlike Zingard which has a matt finish (the boundary layer of oxides and carbonates which are vital to its longevity), HDG has a bright finish when new.
- Unlike Zingard, HDG can coat the inside of pipes etc. without being blasted.