

## **Painting galvanized steel**

Galvanized is produced on a continuous hot dipped coating line. As the strip emerges from the coating bath all excess molten zinc is removed from the surface using air knives. From there the strip enters a furnace and the heat converts the zinc coating to the zinc/iron alloy coating of galvanized. This galvanized also has a special requirement of dry passivation. This process helps to prevent corrosion. In order to be effective, the galvanized steel is clean and oil is removed. The product is then ready for finish paint.

## **How to paint galvanized steel**

Painting galvanized steel is not difficult, but as with all finish painting some requirements must be met. These are good surface preparation, suitable weather conditions and following paint manufacturer's instruction. Not unlike any other surface requirements.

### **Surface preparation**

#### 1. Detergent/Water Cleaning – Solvent Cleaning (SSPC-SP-1)

- A) Using aqueous solutions of household detergents should be effective in the removal of light deposits of grease and oil. Citric acid is a safer and more environmentally friendly alternative. Make sure to completely dry the surface especially if isocyanate coating is used. Do **NOT** use vinegar, muriatic acid or other acids. These products do nothing to improve paint adhesion in any consistent manner.
- B) Simple solvent cleaning may be adequate to remove any oil. Solvent washing with mineral spirits can be used, although it is recommended to wash the surface after with clean water in order to remove the excess of solvent. Solvent may affect the non convertible coatings such as lacquers, latex and bituminous coatings. These coatings have poor solvent resistance.

See page 2 for proper solvent cleaning method.

#### 2. Hand Tool Cleaning (SSPC-SP-2)

- A) Always clean the surface first with one of the methods explained above (SSPC-SP-1).
- B) Remove tightly contaminants, all soil cement and other surface dirt with a stiff brush or scraper. Be careful not to damage the surface.
- C) Clean the surface one more time with one of the methods explained above (SSPC-SP-1).

**Before recoating the surface must be clean, dry and free of contaminants. A slight sanding is always recommended.**

### **Suitable Weather Conditions**

Consult with paint manufacturer's instruction for the proper conditions required for their product.

**\*The above is a general outline and in all cases the paint manufacturer's instructions shall be followed in the strictest conformance.**

## Solvent cleaning procedures

Different types of cleaning products can be used on galvanized steel: aromatic solvent, aliphatic solvent, acid or alkaline aqueous solutions and solvent miscible with water. Whatever the type used, it is very important to completely eliminate the cleaning product before painting. Since aqueous solutions are less volatile, their elimination is often more difficult. Solvent cleaning is therefore more frequently used.

### Cleaning steps

- 1) Insert the cleaning product in a squirt bottle. This type of bottle facilitates a sprinkle of cleaning product over the contaminated surface and avoids contact between the contaminants and the cleaning product.
- 2) Use a clean, lint free rag . (Rags should not contain dye). If you need to use a colour rag, make sure it does not fade when soaked with solvent. The rag must be changed frequently.
- 3) Immediately after cleaning, wipe the surface with a dry and clean rag. Do not let the solvent dry over the surface. The delay between surface cleaning and painting must be as short as possible to avoid any contamination of the cleaned surface.
- 4) Some solvents can lead to auto ignition of soak rag. Do not leave the soak rag in a pile. Make sure rags are completely dry before disposal.
- 5) Frequent or extend exposure to solvent vapours may cause serious health problems. It is very important to wear appropriate protective equipment: adequate respiratory mask based on solvent used, gloves and protective clothes. Make sure to execute the cleaning in a well ventilate area.

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