

How to Repair a Galvanized Coating.

WHY GALVANIZE?

Hot dip galvanized coatings are applied to steel to improve the anti-corrosion performance of the steel to ensure that it lasts as long as possible with a minimum of maintenance

COATINGS DIFFER

Only hot-dip galvanizing gives a coating that can reach the 50 year life required of structural building products.

THICKNESS COUNTS

Compared to other zinc-rich coatings, hot-dipped galvanizing is:-

- THICKER
- HARDER
- FULLER

HOT-DIP GALVANIZED
PRODUCTS LAST
LONGER...



Galvanizing repair. The use of zinc-rich paint is one recommended method.

When hot dip galvanized items are damaged by cutting or welding, it is recommended that the uncoated areas are repaired. A number of repair methods are available and the galvanizing industry has used and evaluated a wide range of products for over 35 years.

There are a number of factors that have to be considered when repairing hot dip galvanized coatings. These are:

- the size of the area to be repaired
- the ease of use of the repair material
- the performance of the repair method with respect to the required performance of the hot dip galvanized coating.

Zinc rich paint repair.

Protective Coatings products (such as

those produced by Jotun) are recommended for galvanizing repair. For light duty applications a one-pack, air drying zinc-rich primer can be used.

The single pack system has good adhesion to prepared surfaces and can be handled after 2 hours (at 20°C). Coating thickness per coat is typically 45 microns. Two coats are required to ensure compatible coating thickness to the hot dip galvanized coatings.

A two-pack epoxy zinc rich system is recommended for heavy duty applications and full coating reinstatement. The two-pack system is touch dry in 15 minutes and hard dry in less than 2 hours at 20°C. Two coats at 45 microns each are recommended to provide equivalent coatings thickness to hot dip galvanizing.

The recommended procedure for touch-up is as follows:

1. Power tool clean to Australian Standard 1627:2 Class 3 to remove all welding scale, slag and corrosion products.
2. Degrease and remove all surface oil, grease or soil. (This step can be omitted if no organic contamination of the exposed steel has occurred.)
3. Apply two coats of selected coating to a minimum dry film thickness of 85 microns.

Observe good painting practice with respect to weather condition and application conditions.

TRIED & PROVEN

Over 40 years of field testing shows that galvanized coatings perform well in harsh mining environments.

REPAIRS TO GALVANIZED COATINGS

When hot dip galvanized items are damaged, it is recommended that the uncoated areas are repaired. A number of repair methods are available and the galvanizing industry has used and evaluated a wide range of products for over 35 years.

WHY GALVANIZE WITH INDUSTRIAL GALVANIZERS?

For steel users requiring fast, proven corrosion protection for local or national projects Industrial Galvanizers is the established hot dip galvanizer with nationwide coverage.

How to Repair a Galvanized Coating.

Ensure that steel surface is above Dew Point prior to application. Warm the area to ensure surface dryness if temperature and humidity indicates Dew Point range has been reached.

Adhere to coating manufacturers' product data sheets for safety, mixing, pot life, application, over-coating and curing information.

If a close colour match is essential, apply a light coat of aluminium paint over repaired area after drying. Rub over aluminium paint with a soft rag before drying to blend the repair into the surrounding galvanized coating appearance. NOTE: The aluminium paint is NOT an anti-corrosive coating and does not contribute to the performance of the repair.

Metallic Repair Coatings.

There are various types of metallic repair materials available in the form of alloy 'sticks' which are applied by heating the area to be repaired and melting the repair material onto the area. Early repair sticks had a high lead content and did not reflect the characteristics of a galvanized coating.

Cominco of Canada has developed its Galvanguard repair alloy which has a higher zinc content and is claimed to be easier to use than previous repair alloys.

These repair alloys are best used for repairing welds and similar small areas on horizontal surfaces, which can be easily and quickly heated.

A higher level of operator skill is required to affect successful repairs using Galvanguard or similar products. Supply of these proprietary products is sometimes problematical.

Zinc metal spray is an effective repair method for larger areas, as it will apply a zinc coating of any required thickness. However, successful application requires a high quality surface preparation (Class 3) to ensure good adhesion. Specialised equipment and skilled operators are required to apply zinc metal spray coatings, but they provide a high quality repair solution where larger areas of the item have not galvanized due to design constraints in venting and draining.

Stripping and re-galvanizing the item is also an option, and will guarantee a full and effective coating.

A.C.N. 000 545 415

Registered Office:
11 Talavera Road,
Macquarie Park, NSW 2113

INDUSTRIAL GALVANIZERS (AUSTRALIA)

Townsville | Brisbane | Newcastle | Sydney | Port Kembla | Melbourne | Launceston | Perth

www.ingal.com.au

www.valmont.com

