

HAMMERITE DIRECT TO GALVANISED METAL PAINT



Hammerite Direct To Galvanised Metal Paint is a single pack, air-drying decorative coating for application to galvanised steel and other non-ferrous metals without the need for a primer. The product uses an alkyd designed for high quality air-drying finishes. It has fast surface dry and excellent through-dry in thick films so allowing quick recoatability. Hammerite Direct To Galvanised Metal Paint can be applied by brush or roller. The specially selected resin imparts a gloss finish which resists dirt pick up. Hammerite Direct To Galvanised Metal Paint is designed to give excellent one coat coverage.

USE

As a decorative coating for galvanised and non-ferrous metals and certain plastics.

APPEARANCE

Smooth Gloss.

NOTE: Silver and Copper are metallic sheen finishes.

COLOUR RANGE

See Hammerite Colour and Product Guide or page 13 of this guide. Note: Hammerite Finishes are produced to the in-house colour standards of the AkzoNobel group and are not matched to BS 4800 or RAL standards.

SURFACE PREPARATION

WEATHERED GALVANISED STEEL

- New galvanised steel ideally should be weathered until dull before application of Hammerite Direct To Galvanised Metal Paint (this is true of both spangled and non-spangled galvanised steel)
- Abrade giving a key to subsequent coatings. This is essential to remove any pre-treatment factory finish (chromate pre-treatment). Abrasion should be with coarse sandpaper rather than fine to ensure removal of this coating
- Degrease with Hammerite Brush Cleaner & Thinners or diluted detergent (preferred option) both for removal of surface contaminants and soluble salts
- Rinse with clean water
- Allow to dry

NEW BARE GALVANISED STEEL

- To ensure maximum adhesion on aluminum and non-ferrous metals, surfaces should be weathered until dull before applying Hammerite Direct to Galvanised Metal Paint. Alternatively, use Hammerite Special Metals Primer* to ensure maximum adhesion on new surfaces
- Wash down thoroughly with Hammerite Brush Cleaner & Thinners or diluted detergent (preferred option) both for removal of surface contaminants and soluble salts
- Rinse with clean water
- Allow to dry
- Apply a phosphoric acid etch primer (mordant solution) to convert the galvanised steel zinc surface before application of Hammerite Direct To Galvanised Metal Paint

PAINTED METAL SURFACES

- Abrade the painted surface to remove contaminants/gloss
- Wash down thoroughly with Hammerite Brush Cleaner & Thinners or diluted detergent (preferred option) both for removal of surface contaminants and soluble salts
- Rinse with clean water
- Allow to dry
- Test for compatibility with existing paint by painting a small test area first. Any compatibility problems will be evident within the first hour after application

RUSTED METAL SURFACES

- For rusty steel or iron: Hammerite Direct To Galvanised Metal Paint is not suitable for ferrous metal. Use Hammerite Direct To Rust Metal Paint
- For light white rust on galvanised steel (light powdery deposit): Wipe clean with a paint brush, abrade, and degrease as mentioned previously
- For moderate white rust on galvanised steel (darkening and apparent etching of the surface): Brush affected area using

a wire brush to remove white corrosion, then use a cloth which has been wet with a standard aluminium paint to wipe a thin film onto the affected area. Then abrade and degrease as above

BARE ALUMINIUM, COPPER & BRASS

- To ensure maximum adhesion on aluminum and non-ferrous metals, surfaces should be weathered until dull before applying Hammerite Direct to Galvanised Metal Paint. Alternatively, use Hammerite Special Metals Primer* to ensure maximum adhesion on new surfaces

Note: In many areas (industrial and coastal districts in particular) soluble salts may contaminate the substrate. It is essential to scrub and rinse repeatedly with diluted detergent and rinse with clean water to remove this contamination.

* Subject to availability in country

HAMMERITE DIRECT TO GALVANISED METAL PAINT

RECOMMENDED FILM THICKNESS

- Minimum 125 microns wet
- Minimum 50 microns dry

One coat will normally be sufficient although additional coats may be required when applying over contrasting colours.

COVERING CAPACITY

Up to 8 m²/L for one coat at recommended dry film thickness (brushing).

APPLICATION CONDITIONS

Only one coat is usually required. However when applying over a contrasting colour a second coat may be needed. Leave at least 6 hours between coats.

- **Application temperature:** 10-35°C (50-95°F)
Actual drying times might vary depending on applied layer thickness and weather conditions owing to environment temperature and humidity.
- **Maximum relative humidity:** 85%

APPLICATION METHODS

BRUSH - Suitable for small areas.

- Stir before use
- One coat will normally be sufficient but additional coats may be required when applying over contrasting colours
- Ensure edges and corners are adequately coated

ROLLER - Suitable for larger, flat areas.

- Hammerite Direct To Galvanised Metal Paint is designed to be ready for use
- The edges should be brushed in first and the remaining areas quickly filled in with the roller
- For best results apply liberally using short, quick strokes

DRYING TIME

- **Touch / Surface Dry:** 4 hours
- **Recoat:** 6 hours

NOTE: Times may change depending on weather conditions.

CLEANING EQUIPMENT

Use Hammerite Brush Cleaner & Thinners.

SHELF LIFE AND STORAGE CONDITIONS

Tins

Minimum two years at 21°C (70°F) stored in original, unopened container. Hammerite Direct To Galvanised Metal Paint should be stored in a dry, well-ventilated area. Protect from extreme temperatures and strong sunlight.

For safe disposal

Remove as much product as possible from brushes, rollers and equipment before washing. Some local authorities have special facilities for disposing of waste products. Do not empty into drains and watercourses.

IMPACT RESISTANCE

Excellent impact resistance. Passes 15cm (face) ASTM2794, falling ball 1 kg at 7 days at 100 microns dry film thickness.

ADHESION

Galvanised steel provides a difficult surface on which to achieve good adhesion. Good surface preparation will prevent most types of potential adhesion failure. The table opposite may be used as a guide to the causes of adhesion failure and the solutions to rectify these.

CHEMICAL RESISTANCE

Resists splashing by dilute acids/alkalis, petrol and diesel when fully cured.

TEMPERATURE RESISTANCE

Limits:

Minus 20°C (-4°F) to 150°C (300°F) maximum intermittent when fully cured.

Continuous 80°C (180°F) when fully cured.

NOTE: Colours may fade after prolonged exposure at temperatures exceeding 50°C (120°F).

UV RESISTANCE

Hammerite Direct To Galvanised Metal Paint will resist the effects of UV damage. The longevity of the film however could be reduced in hot climates or south-facing aspects where the extremes of UV and temperature are present.

NOTE: All decorative alkyd based paints will fade or chalk when exposed to heat and UV radiation.

ADHESION FAILURE

Cause	Remedy
Surface contamination – oil and grease	Degrease with diluted detergent
Formation of soluble salts (particularly applicable to weathered galvanised steel)	Degrease with diluted detergent
Chromate factory pre-treatment	Abrade to remove
New galvanised steel with large and bright spangle, predominantly zinc	Leave to weather until dull before application of Hammerite Direct To Galvanised Metal Paint or use phosphoric acid etch primer followed by Hammerite Special Metals Primer*
Corrosion of the zinc	Refer to Surface Preparation section
Etch primers or 'mordant' solutions	Only use phosphoric acid etch primer – other acid based primers do not cause adhesion failure but will affect the thickness of the galvanised coating
Reaction between Hammerite Direct To Galvanised Metal Paint and zinc (formation of fatty acid soaps)	This is inevitable but thorough surface preparation (degrease and abrade) and the selection of alkyd for this product maximises the adhesive strength of the product. Prolonged performance will result from the use of Hammerite Special Metals Primer*
Flaws in the painted substrate (scratches etc.) allowing water to get under the dry paint film, encouraging lifting of the paint	Thorough surface preparation will prevent the product coming off in sheets where this does occur. This is more likely when water is allowed to stand or pool on the surface. This product should not be recommended for high risk surfaces (flat roofs must be avoided)

SERVICE LIMITATIONS

- Not suitable for use on equipment which may operate at 80°C (180°F) or above
- Not suitable for use in contact with drinking water or foodstuffs
- Not suitable for permanent immersion

VOC LEVEL

Hammerite conforms to EU Directive 2004/42/CE for VOC. The products shown above are classified as Category A/i 500g/l(2010). The product contains maximum of 499 g/l.