

WILKO PAINT, Inc.

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MANUFACTURERS OF THE FINEST INDUSTRIAL FINISHES

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PAINTING GALVANIZED STEEL

Galvanized steel surfaces must not be coated with most conventional paints, i.e., those in which the vehicle contains vegetable oils and/or fatty acid components, which reacts chemically with zinc at the substrate interface, forming zinc soap that degrades the adhesion of the coating.

For this reason coatings that are inert to this reaction, or coatings that passivate, and forms a barrier to, the zinc must be applied prior to topcoating. Additionally, the topcoat and the base primer must be compatible.

One of the most common and effective pretreatment primers for galvanized steel is two component wash primers, which are applied at a thin film thickness range of 0.3-0.5. They must not be applied at a hiding coat.

Surface Preparation: Clean as indicated below. Inspect surface for rust, pinholes or signs of zinc wearing down to the raw steel. If any of these conditions are present, sweep blast or abrade rust areas, then apply wash primer. Additionally, a pigmented primer like 902.13 is recommended, if painting rusty galvanized and water based topcoat is used.

New Unweathered Galvanized Steel (As indicated by shiny metallic appearance and oily surface): Thoroughly clean free of oils or grease using suitable solvent or chemical wash (NOT BY WIPING), or oil emulsifying detergent followed with a fresh water rinse. Wilko No. 850.01 Rust Sol may also be used as an etching compound.

Old or weathered galvanized steel or previously painted Galvanized Steel: Power wash using an industrial emulsifying detergent or trisodium phosphate.

COATING SYSTEMS: Primers and topcoats provided are available in other colors – consult your Wilko Representative for alternate colors.

Alkyd or Silicone Alkyds: Alkyds are normally applied to vertical surfaces. They provide glossy finish at an economical price. They must not be used unless an appropriate primer for galvanized surface is used.

Primer: 603.07 Vinyl Wash Primer or 603.08 Vinyl Wash Primer (Chromate Free). Ensure that all surfaces are covered to prevent coating failure.

Topcoat: 461.14 Enamel HS White or 821.04 Silicone Alkyd HS White. Do not apply over bare areas.

Vinyl Coatings: These type of coatings will adhere directly to properly prepared galvanized steel but they are available only in low solids, and their use is restricted because of VOC limitations.

Primer: 603.07 Vinyl Wash Primer, 603.08 Vinyl Wash Primer (Chromate Free), or 607.05 Vinyl Primer

Topcoat: 641.05 High Build White

Water Based Acrylic: This system is preferred for ease of use if a flat or semi-gloss finish is desired

Primer: 603.07 Vinyl Wash Primer, 603.08 Vinyl Wash Primer (Chromate Free), 902.13 WB Primer Gray, or 907.15 WB Primer Red. The latter two are recommended if rust or bare steel is present.

Topcoat: 931.02 Acrylic Latex White for flat finish, 941.05 for gloss finish. These coatings will also adhere DTM to properly prepared galvanized, provided that no rust or exposed steel is present.

Polyurethane Topcoats: Polyurethanes will provide excellent durability and gloss retention, and is excellent where chemical resistance and high gloss is desired.

Primer: 603.07 Vinyl Wash Primer, 603.08 Vinyl Wash Primer (Chromate Free), or 342.22 Wilkopon Epoxy Primer.

Topcoat: 721.11 Wilkothane G White, 721.52 Wilkothane HS White.

Epoxy Topcoats: Epoxies provide excellent chemical and water resistance, have excellent adhesion to galvanized coating, but chalks as it weathers.

Primer: 603.07 Vinyl Wash Primer, 603.08 Vinyl Wash Primer (Chromate Free), or 342.22 or other Wilkopon Epoxy Primer.

Topcoat: 331.01 or 331.29 Wilkopon Epoxy White.

Niso (Non-Isocyanate) Coatings: Although not as good as epoxies for chemical resistance, nor as good as polyurethanes for gloss retention, Niso coatings provide a good balance of chemical resistance and gloss retention as well as fast dry properties without the use of isocyanates.

Primer: 603.07 Vinyl Wash Primer, 603.08 Vinyl Wash Primer (Chromate Free), or 342.22 or other Wilkopon Epoxy Primer.

Topcoat: 781.01 Wilkofast White

Other Lacquers: Acrylic lacquers will provide good adhesion to galvanized steel.

Primer: 102.05 Gray Acrylic Primer

Topcoat: Consult Wilko Representative

Consult your Wilko Representative for other coating options.