

Anti-corrosion protection system

M-Guard Prime

One-component quick-drying universal primer based on modified alkyd

Usage and Properties

M-GUARD PRIME is used as a primer for equipment, vehicle bodies, metal structures, agricultural machinery and other applications. It is very easy to apply and dries extremely quickly. Both one- and two-component systems can be applied over M-Guard Prime. It contains an anticorrosive pigment that greatly improves corrosion protection.

In a system with M-Guard Topcoat, it is suitable for exposure to rural, urban and mildly industrial or coastal atmospheres.

Highlights

- very good anti-corrosion properties
- good adhesion to the metal substrate
- quick drying
- good adhesion between coats
- allows air and accelerated drying
- enables a short interval between coats

Field of application

- as a primer beneath one- or two-component systems
- with dry film thicknesses of up to 25 µm, it enables welding without affecting the quality of the weld.

Technical properties*

Packing		1, 5, 10, 25 kg
Temperature		3°C above the dew point temperature
Humidity		Minimum 30 and maximum 85% relative air humidity
Dilution		Chemcolor NITRO THINNER
Drying time	Temperature [°C]	10 °C 20 °C 30 °C 15 / 25 10 / 20 8 / 16
(dust dry / dry to the touch)	Time [min]	
Accelerated drying	Venting	10 minutes
	Conditions	approx. 80°C - 30 minutes
Intercoat interval	Minimal	10 minutes
22°C; alkyd top coat	Maximum	Unlimited
Recommended film thickness	Wet	approx. 100 microns
	Dry	50 microns
Theoretical consumption	50 µm dft	10.2 m ² / L 7.4 m ² / kg
Shades		gray, green
Gloss		matt
Solid content	Weight	68 ± 2%
	Volume	51 ± 2%
Density		1.38 g/ml
Viscosity	ISO 2431	62 s F6 (20°C)
Adhesion		ISO: 0 / ASTM: 5B
VOC content		IIA(i), 500 g/l (2010); the product contains: max . 500 g/l

(*All technical data stated in this data sheet are based on laboratory tests. The actual data may deviate depending on the circumstances of use, over which we have no influence. dft - dry film thickness)

Preparation of substrate

Good practice

The surface must be dry, clean, free of impurities, greasy stains, rust, slag residues, salt or other contaminants that would prevent good adhesion. Welds, repaired surfaces, joints and surface damage discovered during surface preparation must be properly cleaned and treated before applying paint.

Surfaces that have oxidized after preparation and prior to painting must be treated to an appropriate standard. Study the prescribed standards. Please contact Chemcolor Technical Services for further advice.

Metals

Clean the surfaces with solvents to remove impurities such as oil, grease, salt, dirt, markings before preparing the surface for painting. Use ISO 8501-1 St 2 manual cleaning or ISO St 3 machine tool cleaning to remove corrosion and prepare the surface according to the standard. Highly exposed surfaces or surfaces intended for immersion must be prepared according to the ISO 8504-2 method or sandblasted according to ISO 8501-1 SA 2.5. After cleaning, we should get a clean surface with a roughness between 25 and 50 microns.

Restoration of old coatings

Prepare the surface by cleaning with solvents to remove impurities. Use ISO 8501-1 St 2 hand cleaning or ISO St 3 machine tool cleaning to remove corrosion and loose paint and prepare the surface to standard. Cover the edges of the well-adhered paint by 5-10 cm with a new paint - primer. Sand the shiny surfaces to provide a grip profile. Do a test patch to ensure the compatibility of the old and new paint.

Application conditions

The substrate temperature must be at least 3°C above the dew point during application.

Temperature: 5° - 30°C

This temperature applies to air, surface and material. The surface must be visibly dry.

Relative humidity: 30% - 85%

Preparation of material

M-GUARD PRIME can be applied by brush, roller, airless or air spraying. Mix well before application.

Cover the paint in opened containers with thinner, seal tightly and use within a short time.

Brush/roller

Brush: Natural fibers

Roller: Natural or synthetic

Thinning: 5% Chemcolor NITRO THINNER

Airless

Pressure: 170-200 Bar

Nozzle: .013-.021

Thinning: 5-15% Chemcolor NITRO THINNER

Air spraying

Air nozzle: 1.3 - 2.2 mm

Air pressure: 3.1 - 5.1 bar

Dilution: 10-15% with Chemcolor NITRO THINNER

Application with a brush or roller is suitable for small areas and local corrections. Brush application, compared to spraying, requires more coats to achieve the prescribed dry film thicknesses. Thinning depends on application conditions and paint temperature.

Cleaning

Chemcolor NITRO THINNER

Coating systems

Both one- and two-component varnishes and enamels can be used as finishes over M-GUARD PRIME.

M-Guard Topcoat M-Guard Top-Prime

Cleaning of tools and surfaces after use

Tools and work equipment are cleaned immediately after finishing work with Chemcolor Nitro thinner or mechanically.

Storage of material

The shelf life of the product in well-sealed, undamaged original packaging, stored in a dry place at a temperature between +5°C and +25°C, is 12 months from the date of manufacture.

Remarks

All technical data stated in this data sheet are based on laboratory tests. Actual data may vary depending on usage circumstances beyond our control.

In no event shall Chemcolor's liability for a claim of any kind, such as negligence or strict liability for loss or damage arising out of work performed in connection with or resulting from the use of the products, exceed the purchase price of the products or part of the products giving rise to the claim. In no event shall Chemcolor be liable for consequential or incidental damages.

Protective measures:

- When applying the coating in enclosed, unventilated spaces, forced ventilation must be provided. Do not apply the material near open flames or welding.
- Protective equipment must be worn during work; gloves, goggles and more.
- Before eating and after finishing work, it is necessary to change dirty clothes and wash hands.
- The safety warnings on the packaging label must be observed.

Important warnings:

- Uncured/unbound material must be disposed of in accordance with legal regulations. Fully hardened material can be disposed of in municipal landfills in accordance with legal regulations.
- Detailed safety measures, physical, toxicological and ecological data for the product are listed in the safety data sheet, which is available from the Chemcolor sales department or on the website www.chemcolor.si.

This information is based on our experience and careful research. Site working conditions and knowledge of the work affect the quality of application. Successful results depend on a professional assessment of the substrate at the outset and practical experience in selecting the appropriate product. Follow the manufacturer's recommendations and the safety data sheet for this product.