clearcover®



# UPGRADE YOUR STEEL SURFACE



## clearcover® – THE CHROMIUM-FREE PASSIVATION ON HOT-DIP GALVANIZED STEEL STRIP

**Do you need a sustainable, temporary passivation with weldability and good processing properties? That's clearcover®.**

clearcover® is the sustainable and environmentally friendly passivation system without any chromium or chromium compounds and is free from heavy metals such as molybdenum, manganese and cobalt.

Chromium-free passivation is a thin, transparent, washable polymer layer with special additives to improve corrosion resistance, adhesive and paint adhesion and to reduce the coefficient of friction during forming operations.

The highly innovative functional surface on hot-dip galvanized steel strip (HDG) is supplied in combination with zinc, zinc-magnesium and zinc-iron coatings pursuant to DIN EN 10346.

## TYPICAL APPLICATIONS

- Processing industry
- House industry
- Construction industry
- Automotive industry

- Reliable corrosion protection during transport
- Good resistance to emulsions
- **Excellent corrosion protection during storage**
- Sustainable and environmentally compatible passivation
- Excellent weldability
- Direct coatability

**voestalpine Steel Division**
www.voestalpine.com/functional-surfaces

voestalpine
ONE STEP AHEAD.

## PROCESSING PROPERTIES

clearcover® surfaces are ideally suitable for sheet metal working processes such as cutting, slitting and profiling. The chromium-free passivation exhibits excellent joining properties in spot welding, adhesive bonding and foam adhesion and shows good compatibility with forming emulsions. clearcover® can be removed with alkaline cleaning agents as required.

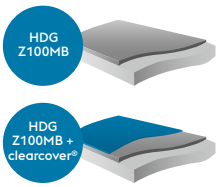
## SUSTAINABILITY AND ENVIRONMENTAL PROTECTION

The sustainable and environmentally friendly functional surface is free of chromium compounds or heavy metals. The possible elimination of energy and resource-intensive process steps such as oiling, degreasing and rinsing/drying at the processing company reduces its ecological footprint.

## CORROSION PROTECTION

clearcover® surfaces show a resistance to white rust after more than 96 hours of neutral salt spray testing pursuant to DIN EN ISO 9227 and over 50 cycles in alternating humidity and climate change testing (DIN EN ISO 6270-2 AHT). Setting new standards at voestalpine.

**Neutral salt spray test**
pursuant to DIN EN ISO 9227

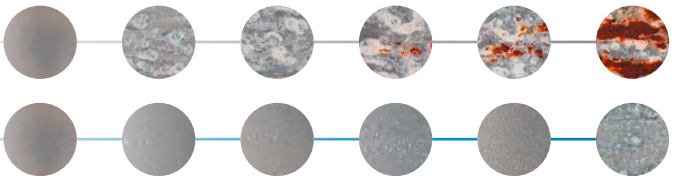



- Zinc coating 5–32 mm
- Strip thickness 0.45–4.0 mm

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*No white rust, even after 96 hours of salt spray testing

**Corrosion images after testing**



0 h | 24 h | 48 h | 72 h | *96 h | 168 h

## DIRECT COATABILITY

clearcover® passivation can be painted directly as a powder coating or cathodic dip coating, even when cleaning processes have been omitted. This eliminates degreasing or other pre-treatment processes and energy-intensive drying steps at the customer. The result is a high level of environmental compatibility with constant or improved performance in terms of paint adhesion and corrosion protection.

## MULTIPLE CERTIFICATIONS

Certifications are naturally a minimum requirement at voestalpine in our effort to provide additional functional surfaces. In many applications, actual properties go far beyond the standard minimum requirements.

RoHs COMPLIANT · REACH COMPLIANT · UN GLOBAL COMPACT · EMAS · SUSTAINABLE DEVELOPMENT GOALS · ISO · CDP SUPPORTER 2018 · Responsible Steel standards & certification · Member of DGNB

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To find out more about functional surfaces, please visit us at
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