

UPGRADE YOUR STEEL TO THE NEXT LEVEL

The sustainable and environmentally friendly passivation for hot-dip galvanized steel strip



Additional treatments: Chromium-free passivation

clearcover® for HDGS factsheet | 06/2021

HDG – CHROMIUM-FREE PASSIVATION 2.0

Do you need sustainable, temporary passivation with weldability and good processing properties? clearcover® is the new, sustainable and environmentally friendly passivation system without any chromium or chromium compounds and is free from heavy metals such as molybdenum, manganese and cobalt.

Typical applications:

- » Processing Industry
- » House Industry
- » Construct industry
- » Automotive

The chromium-free passivation is a thin and transparent, inorganic-organic hybrid containing silane and zinc phosphates. The highly innovative additional treatment on hot-dip galvanized steel strip (HDGS) is supplied in combination with zinc, zinc-magnesium and zinc-iron coatings pursuant to DIN EN 10346.

voestalpine is a pioneer in the field of sustainable steel strip surfaces.

- 1990** Development began on chromium-free surface treatments
- 1994** Chromium-free primer for hot-dip galvanized steel strip
- 1998** Chromium-free pretreatment for hot-dip galvanized steel strip
- 2005** First chromium-free passivation for hot-dip galvanized strip worldwide
- 2010** Chromium-free dry forming aid, dryform®, for hot-dip galvanized steel strip
- 2016** Chromium-free, anti-fingerprint thin film, multiface®, for hot-dip galvanized steel strip
- 2020** Chromium-free passivation 2.0, clearcover®, for hot-dip galvanized steel strip



PROCESSING PROPERTIES

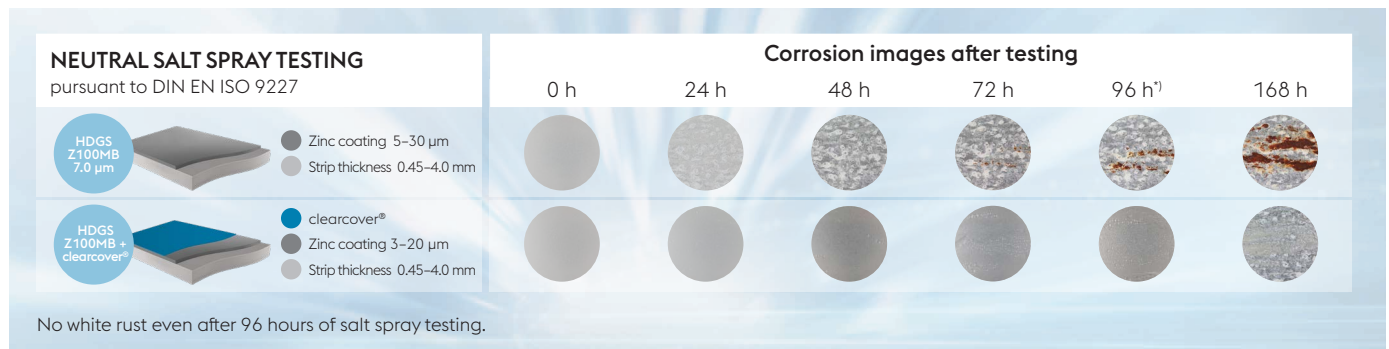
clearcover® surfaces are ideally suitable for sheet metal working processes such as cutting, slitting and profiling. The new chromium-free passivation exhibits very good joining properties in spot welding, bonding and foam adhesion and shows good compatibility with forming emulsions. Whenever required, clearcover® can be removed with alkaline cleaner agents, making it suitable for use in the automotive industry.

SUSTAINABILITY AND ENVIRONMENTAL PROTECTION

The sustainable and environmentally friendly treatment is free of chromium and any chromium compounds or heavy metals. The possible elimination of energy and resource-intensive process steps such as oiling, degreasing and rinsing/drying at the processor 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.



DIRECT PAINTABILITY

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 high-performance treatments. In many applications, actual properties go far beyond the standard minimum requirements.



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To find out more about chromium-free passivation, please visit us www.voestalpine.com/steel



voestalpine Steel Division
 voestalpine-Straße 3
 4020 Linz, Austria
 productmanagement@voestalpine.com
 www.voestalpine.com/stahl/en/Brands/clearcover-R

voestalpine
 ONE STEP AHEAD.