

MM31[®], Multi-purpose, Multi-metal

Cleaning, degreasing, corrosion protection and paint adhesion in 1 simple step

Multi-purpose

To replace solvents, to improve corrosion protection and paint adhesion

Multi-metal

Can be applied on steel, galvanized steel, aluminum, magnesium and stainless steel, amongst others

A simple process

Applied in one easy process step by, for example, a lint-free cloth, manual spray gun with top cup or fully automatic paint system

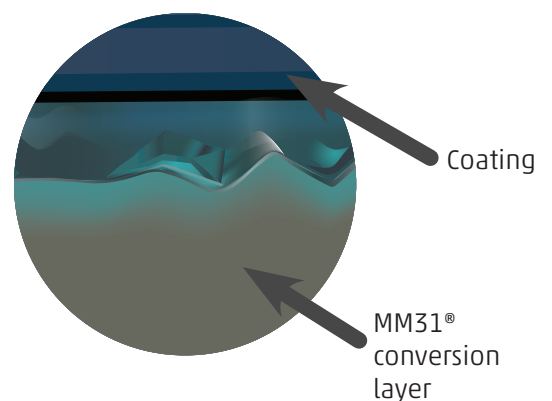
MM31[®] is an innovative chemical pretreatment from AD Chemicals. The product combines the worlds of mechanical and chemical pretreatment.

In the field of pretreatment methods, mechanical pre-treatment (such as blasting or sanding) followed by a coating system is common practice. What would be the result if a mechanical pretreatment could be combined with the added value of a chemical pretreatment?

This question has been the starting point for the development of MM31[®]. For a regular chemical pretreatment, the generic process consists of degreasing, pickling and applying a conversion coating (a layer that provides added value through additional corrosion protection and paint adhesion properties). The degreasing and pickling step is in practical sense identical to the degreasing and mechanical pretreatment step in the "mechanical procedure". However, after a mechanical pretreatment, there is no added value to the metal in comparison with a chemical pre-treatment that does create added value. By applying MM31[®] directly after a mechanical pretreatment, the two worlds come together. This results in a clean, ready to coat surface and a quality improvement of the coated substrate on both corrosion protection and paint adhesion properties. This is the result

of forming a conversion layer. The product also offers protection against flash rust and undercreep corrosion, allowing an extended storage period.

MM31[®] creates a chromium-3 based protective conversion layer, which is formed on the metal by a chemical reaction with MM31[®], whereby the metal itself contributes to the formation of the layer.



"Process can be fully automated"

MM31® standard procedure



Step 1
Mechanical
pretreatment



Step 2
MM31®
Conversion
coating



Step 3
Dry



Step 4
Coat

MM31® procedure for heavily contaminated surfaces



Step 1
MM31®
Cleaning |
Degreasing



Step 2
Remove
excess



Step 3
Mechanical
pretreatment



Step 4
MM31®
Conversion
coating



Step 5
Dry



Step 6
Coat

MM31® procedure chemical pretreatment



Step 1
Starter MM



Step 2
Rinse



Step 3
MM31®
Conversion
coating



Step 4
Dry



Step 5
Coat



"MM31, an innovative product that will change the market standard for pretreatment and coating processes"

Roland van Meer
Business Unit Manager AD Chemicals

"MM31®, the new market standard!"

MM31®



Product Properties

- Waterbased and free of Hazard Symbols.
- 1 product for both cleaning/degreasing and applying a chemical pretreatment.
- Multi-metal: MM31® can be applied on steel, galvanized steel, aluminum, magnesium and stainless steel, amongst others.



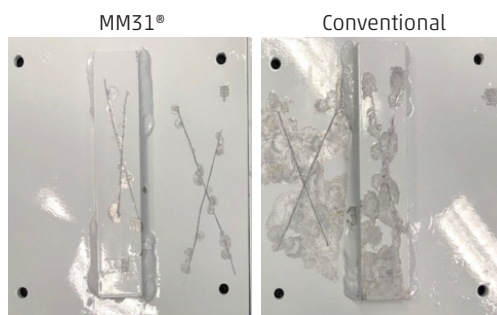
Advantages

- The conversion layer applied with MM31® improves adhesion of powdercoating or wet paint and increases the corrosion protection properties.
- Flash rust resistance on steel products, white rust protection on zinc, improved bare metal corrosion resistance on aluminum.
- Allows an extended storage period.
- Chemical pretreatment applied in one process step. MM31® is a simple process without the need for heated baths and the use of heavy chemicals.
- Results are similar or better than the requirements of international quality standards such as FROSIO, NACE, GSB, Qualicoat and Qualisteelcoat.
- Replace solvents in the business process with a user-friendly and non-aggressive chemical.
- Protect employees against exposure to harmful substances.

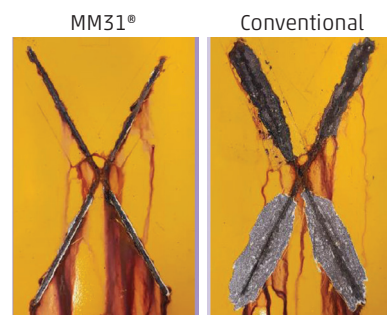


Test results

- Tested in combination with the most common paint systems of global paint suppliers.



Aluminium | PU Primer | 1008 h ASST



Steel | 1-layer powdercoat | 1008 h NSS

