

Oxsilan® for automotive components

Trailer chassis line now runs successfully with environmentally-friendly Oxsilan® technology



- ✓ **Multi-metal lines**
- ✓ **Low investment costs**
- ✓ **Significant process cost savings**
- ✓ **Higher productivity due to fewer process steps**
- ✓ **Reliable and easy to control process**

Fahrzeugwerk Bernard Krone GmbH is one of the leading European manufacturers of commercial vehicles. For its 'Cool Liner' trailer, the chassis pretreatment was converted from conventional zinc phosphating to the new Oxsilan® technology. Brügger Fahrzeugwerk & Service GmbH is responsible for the pretreatment of the one-piece 16 meter long chassis as the service partner of Fahrzeugwerk Bernard Krone GmbH. Over the past year by working with Chemetall it has made continuous improvements to its pretreatment processes thereby achieving both ecological and financial gains.

Oxsilan® – the eco-friendly solution for trailer chassis pretreatment



Brüggen Fahrzeugwerk & Service GmbH had good reasons to choose the reliable Oxsilan technology for its new production facility at Lübtheen in Germany where the heavy-duty steel chassis of the ‚Cool Liner‘ trailers are pretreated exclusively for Fahrzeugwerk Bernard Krone GmbH:

- Higher productivity rates, since pretreatment cycle time takes only 15 minutes, including E-Coat
- 50% reduction in fresh and waste water by using a cascade rinse system
- Significant reduction in energy as no heating required
- Simple waste water treatment due to practically no sludge and no hazardous heavy metals being present
- Multi-metal process: steel chassis and aluminium profiles can be pretreated in the same line

Oxsilan® vs. zinc phosphating process

The Oxsilan process requires fewer process steps as it does not need any activation and passivation baths. The elimination of these treatment baths pays off especially when investment is made in new facilities.

Zinc Phosphating



Oxsilan®



Even after seven months, the Oxsilan® bath does not yet show signs of bath scale or sludge.

Cost savings

Brüggen Fahrzeugwerk & Service GmbH achieved the following savings by using the eco-friendly Oxsilan technology:

	Savings
■ No phosphate sludge	10.000 €
■ Less maintenance	30.000 €
■ Less energy	80.000 €
■ Less water	40.000 €
■ Total savings	160.000 €

About Oxsilan®

- Alternative multi-metal process for ZnPh and FePh replacement
- Thin and functional coatings of 30 to 80 nm achievable
- Excellent corrosion resistance and paint adhesion
- Fewer process steps - no activation and passivation stages
- Operates at ambient temperature (ca. 25 °C)
- Simple waste water treatment (virtually no sludge, zinc and nickel free)
- Easy drop-in solution
- Significant process cost savings (water and energy)