

## **PRESS-RELEASE**

Frankfurt/Germany, April 21 2009

Silane technology replaces former zinc phosphating process

### **Sustainable and cost-efficient metal pretreatment**

**Fahrzeugwerk Bernard KRONE GmbH is one of the leading European manufacturers of commercial vehicles. For its 'Cool Liner' trailer, the chassis pretreatment was converted in 2008 from the conventional zinc phosphating process to the new Oxsilan® technology. Brüggen Fahrzeugwerk & Service GmbH is responsible for the pretreatment of the one-piece 16 meter long chassis as the service partner of Fahrzeugwerk Bernard KRONE. Over the past year by working with Chemetall it has made continuous improvements to its pretreatment processes thereby achieving both ecological and financial gains.**

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. The pretreatment cycle time is only 15 minutes, including even the high-quality cathodic painting (E-Coat). With three goods carriers each, the workpieces – such as the trailer chassis with their lengths of up to 16 meters – pass through a single pretreatment bath of approx. 170 m<sup>3</sup> to obtain their long-term corrosion protection. The subsequent powder coating gives the chassis its final color.

#### **Oxsilan - an Alternative to the Zinc Phosphating Process**

With its Oxsilan technology, Chemetall has successfully realized the revolution in metal pretreatment, as confirmed by many customers. Compared with phosphating, metal pretreatment with Oxsilan is simpler, more economical, and more efficient as well. Silane technology needs fewer treatment baths because the activation and passivation stages are not longer required. Due to a significantly lower pickling attack on the steel in the conversion bath, only a small amount of ferric hydroxide is formed. This can be easily removed from the bath by means of a simple filtration device. As a result, the high costs and production losses associated with descaling phosphate tanks with acid cleaning chemicals – as is standard for the zinc phosphating process – are not incurred.

Fresh water consumption in the Oxsilan process is also optimized versus the zinc phosphating process: cascading control of the rinse baths ensures that fresh water and waste water volumes can be reduced by up to 50%. Thus, not only are valuable water resources used sparingly, but there is also a potential for high cost savings to be achieved.

Energy costs can also be saved for bath heating in the process flow with the new silane technology: In zinc phosphating, the bath must be permanently heated to 55°C whereas room temperature at about 25°C is sufficient for the Oxsilan® treatment.

## **The Future of Conversion Coating**

At Brügger Fahrzeugwerk & Service, the excellent test results of Oxsilan brought about the production conversion: in June 2008, the new plant in Lübtheen was supplied with the Oxsilan process. "Intensive support by Chemetall before and during commissioning ensured that the process was running smoothly from day one", said Dariusz Klimczak, Head of Surface Technology at Brügger Fahrzeugwerk & Service. "Also process control is simple managed only by measuring the pH value and conductivity of the bath." Even at full production capacity utilization it is sufficient to only measure the bath parameters of the Oxsilan bath once a day.

"The new Oxsilan technology renders our process much more economical and at the same time more sustainable", said General Manager Bernhard Brügger. "Aside from the comparable corrosion results with zinc phosphating, the significant cost savings and the environmental aspect are additional arguments for favoring the Oxsilan process in other plants as well," he stated with regard to other joint projects.

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*Oxsilan® is a registered trademark of Chemetall.*

## **Further Information**

### **About Oxsilan®**

*During the Oxsilan pretreatment, functional silanes are segregated as reaction products on the metal surface. These thin and functional coatings of 30 to 80 nm layer gauges are significantly below those of known zinc phosphate layers. Oxsilan pretreated substrates such as steel, cast steel, galvanized steel, aluminum and magnesium meet all requirements of the subsequent painting processes with regards to corrosion resistance and paint adhesion. It delivers at least comparable quality requirements with market-standard paint systems of zinc phosphating.*

## **About Chemetall GmbH**

*Chemetall, a division of Rockwood Holdings, Inc. (NYSE: ROC), is a leading global suppliers of special chemicals with a focus on processes for the surface treatment of metals and plastics, as well as selected areas of fine chemicals, including lithium and cesium. Chemetall is headquartered in Frankfurt am Main, Germany, and comprises about 40 companies worldwide. With 3,000 employees, the Group achieved sales of about € 847 million (in 2008).*

## **About Brügggen Fahrzeugwerk & Service GmbH**

*In 2006, Brügggen took over the former MV Lübtheen GmbH. Since then, they have invested large sums of money in the creation of one of the most technically most advanced and sophisticated commercial vehicle plants in Europe on a site of over 250,000 square meters. At the Lübtheen location in Germany, the company manufactures bottom assemblies for swap bodies, as well as box mounts for dry freight vehicles, fresh service and refrigerated trucks. Brügggen currently employs 290 people at its location in Mecklenburg-Vorpommern.*


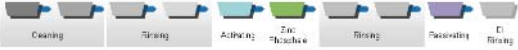




Photos can be obtained from [publicrelations@chemetall.com](mailto:publicrelations@chemetall.com)

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Available photo material:

	<p>For the 'Cool Liner' trailer of Fahrzeugwerk Bernard KRONE, the chassis pretreatment was converted in 2008 from the conventional zinc phosphating process to the new Oxsilan® technology.</p>
<p>Zinc Phosphating</p>  <p>Oxsilan®</p> 	<p>Lower operating costs are achieved through shorter process steps, as well as significantly reduced water and energy consumption. The elimination of treatment baths especially pays off with investments in new facilities.</p>
 	<p>Even after seven months of production, the Oxsilan® bath does not yet show any signs of bath scale or sludge of any type whatsoever.</p>
	<p>Oxsilan® can be introduced simply and without cost-intensive conversions in already existing production lines.</p>

Photos in higher resolution can be obtained from [publicrelations@chemetall.com](mailto:publicrelations@chemetall.com)