## PRACTICAL APPLICATION REPORT FOCUS PRODUCT – FEBRUARY 2012



# **Corrosion protection with OKS 2511**

## Zinc Coating





### Advantages and benefits

- Highly effective due to active, cathodic corrosion protection
- Can be used for temporary and permanent corrosion protection
- Formation of a micro-rough adhesive surface for subsequent coatings
- Self-cleaning spray valve
- Suitable for spot welding

As defined in DIN 50 900 corrosion is the reaction of a metal material with its environment which results in a measurable change in the material and can lead to an impairment of the functionality of a component or of an entire system. Corrosion arises mainly through chemical influence or electro-chemical reaction.

In order to achieve temporary corrosion protection of up to two years (usually for storage and transportation) oils or waxes that are simple to apply and to remove again are mainly used.

In order to achieve permanent corrosion protection for a period of up to 10 years (and more) various measures are taken such as the selection of corrosion-resistant materials, metal coatings (electroplating, metal spraying, hot dip galvanizing), mineral coatings (enamelling, cementing), organic coatings (coating or cladding with plastic) or electro-chemical protective mechanism. However, all these measures must already be taken into consideration during the design and manufacturing stages. In order to touch up interruptions or damage to galvanised surfaces caused by welding, drilling or cutting zinc spray is often used in the maintenance and workshop fields, such as in steel building construction and civil engineering, heating and piping systems and when repairing exhaust systems and car body damage. Zinc spray is suitable in particular for spot welding. It adheres firmly to ferrous metals and forms an excellent priming for the subsequent coatings.

The requirements placed on the touching up of hot-galvanised surfaces are described in DIN EN ISO 1461 of 1999, which has replaced DIN 50 976 of 1989. These are to be observed in the context of the concrete application.

#### **Product description**

OKS 2511 is used to establish a permanent corrosion protection in combination with other metal sprays such as OKS 2531 or OKS 2541 or colour paints. In the course of further development of OKS 2511 corrosion protection as measured with the salt spray test could be improved from 480 hours to now more than 700 hours (layer thickness 70  $\mu$ m). In addition the cure time was halved to 12 hours and the temperature resistance increased to 400 °C. With a spraying surface of 3 m<sup>2</sup> per can at a layer thickness of 70  $\mu$ m, OKS 2511 now covers almost double the surface of before.

Speciality Lubricants Maintenance Products

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## **Example of use: Zinc Coating**

In workshops slideways and piston rods are stockpiled as piece goods. When chromiumplated slideways and piston rods are tailored, the end pieces have to be protected permanently against corrosion afterwards. Since these pieces are manufactured order-specifically in small numbers, subsequent electro-

plating is often not possible and can also not be carried out in the time available.

With OKS 2511 it is possible to carry out permanent corrosion protection of the cut surfaces rapidly and inexpensively in your own workshop.





#### **Further OKS corrosion protection products**

OKS 2101	Temporary wax-based corrosion protection film
OKS 2301	For protecting the injection moulding die against corrosion
OKS 2521	Decorative corrosion protection based on zinc and aluminium powder
OKS 2531	Decorative corrosion protection based on aluminium powder
OKS 2541	Protective and decorative coating with stainless-steel pigments for all materials
OKS 361	High-performance corrosion protection oil for storing and lubricating machine
	elements
OKS 601	Multiple-oil for cleaning and care of metal surfaces

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