

## KORING 211-2 (concentrate for dilution 1:8 to 50) *Passivating and Preservative Liquid*

### Purpose:

KORING 211-2 is an almost colourless to yellowish liquid, biodegradable. It is used as a rinsing agent with anti-corrosive and passivating effect for ferrous metals and galvanized surfaces. The treated surface is protected against corrosion in the short to medium term. The product is particularly suitable for inter-operative protection, but can also be used for medium-term dispatch protection. At the same time, it has the ability to dissolve and decompose some oils and has washing abilities.

KORING 211-2 can be used in both tunnel (continuous) washers and multi-bath discontinuous washers. It is applied by immersing, spraying, but it can be applied by hand also.

The concentrate must be diluted with water before use. When applying by hand without elevated temperature, it is advisable to choose a lower dilution.

The working temperature of the diluted product is from 5 to 60°C. At temperatures above 60°C, the agent is depleted more rapidly, the corrosion inhibitor is decomposed at temperatures above 70°C.

### Application:

Before use, the product must be diluted in the appropriate proportion with water. If, on some installations, water and concentrate are dosed separately into the washing line, the correct dilution is checked by the titration method. Instructions for the titration determination are available on request. The concentration can also be controlled by measuring pH. Depending on the quality of the input water used for dilution, the pH should be in the range of 8-9.5. The water used for dilution can be tap water, but the best results and greatest durability are achieved when the product is diluted with distilled or demineralised water. Certain types of tap water supply can reduce the effectiveness and durability of the product, and where the visual quality of the surface matters, they leave stains. It is not recommended to use tap water that has pH of less than 7.2 and contains free or bound chlorine.

To reduce product consumption, it is advisable to blow the treated products with air after the passivation; rinse to draw back the bath droplets. If droplets are allowed to dry on the surface of the product, they will leave visually distinct patches of dried corrosion inhibitor.

Depending on the type of equipment used, previous contamination and the dilution water, it usually takes about 15 seconds for the passivation reaction to take place at 60°C. At lower temperatures, the times can increase to several minutes.

If the passivation agent is used simultaneously for the final washing of the remaining dirt on the product surface, the contact time must be adapted to the dirt and the equipment used. If the "remaining impurities" are machining oils and emulsions, the passivation bath will deplete faster.

For dilution in the washing bath, at water pH 7.0-7.5: it is sufficient to achieve a dilution such that the bath has a pH of around 9.0. The bath is exhausted if the pH of the bath drops below 8.0.

### Warning:

KORING 211-2 is an irritant (in concentrate form). Therefore, protect your hands with gloves, your eyes with goggles and your body with suitable working clothes. After the agent has been swallowed, do not induce vomiting, drink ample amount of clean water and call on a doctor. After contact with eyes, rinse them with clean water and call on a doctor.

**The product is not suitable for washing copper and its alloys. The passivation reaction can cause a colour change.**

An operational test is required before using in a production process where it has not been used.

Although it is a solution, some of its components have a higher specific gravity, so that they may sediment with long-term storage, especially at lower temperatures. This is usually not recognizable by naked eye. Therefore, it is always necessary to stir the concentrate before use and dilution.

A respirator with a carbon filter is essential for spray application!

### Packaging:

The concentrate is delivered in 25 l, 50 l plastic drums, 200 l barrels and 1 m<sup>3</sup> IBC containers. The agent can also be delivered in a different packaging by arrangement with a customer.

### Storage:

Store in plastic containers. Storage temperature of 5-40 °C.

### Expiration:

12 months from date of dispatch in sealed packaging.