

## ::: KS-4000

water-based stone chip protection

### CHARACTERISTICS

KS - 4000 is an environmental friendly, water based protective anti-gravel coating with sound deadening and anti-corrosion properties. The product contains 0% VOC. After drying KS - 4000 can be painted over with all conventional 2K-acrylic and basecoat lacquers and also water based lacquers. After the product has completely dried remains a very elastic film that offers a good protection against various climates, and which is sand able.☒

### APPLICATION

KS - 4000 is applied as an anti corrosion and anti gravel coating on clean cold-rolled steel, clean galvanised steel, sand aluminium or sanded 2K primers of metal parts for instance on spoilers and side-skirts of cars, trucks and coaches. Because of the sound-deadening properties KS - 4000 can also be applied in the wheel-housings. Applicable in: - Automotive industry - Coach works - Garages, workshops - Body repair shops - Bus construction

### PRODUCT DATA

**MATERIAL DATA:** Consistence: Viscous, good sag-resistance Colour: Black / white Viscosity (20°C) Brookfield (fresh): 72 - 88 Pas (Spindle 5 / V<sup>1</sup>/<sub>2</sub>) Viscosity (20°C) Brookfield (after 24 hr + mixing): 96 - 128 Pas (Spindle 5 / V<sup>1</sup>/<sub>2</sub>) Density (20°C): 1,38 - 1,42 kg / ltr PH: 7,5 - 8,5 Specific gravity: Ca. 1,03 kg/l The drying time depends on the layer thickness and ambient conditions. Solids content: Ca. 64% **PROPERTIES:** Completely dried At ± 20°C, 65% RH: 60 - 120 Minutes (± 500 μ) At ± 60°C (oven): 15 - 20 Minutes (± 500 μ) At ± 60°C (IR): 10 - 15 Minutes (± 500 μ) Curing time At ± 20°C, 65% RH: 6 - 8 Days (± 500 μ) Printability (± 20°C, 65% RH) 2K-acrylic system: Possible after drying Basecoat system: Possible after drying Water based system: Possible after drying Chemical resistance Hardened

against: Water, saltspray, oil, soft bases and acids Temperature resistance  
 Hardened against: -25° C to + 120° C Usage With  $\pm 500 \mu$  wet layer:  $\pm 0,7 \text{ kg/m}^2$ ;  
 $\pm 0,5 \text{ ltr/m}^2$  Cleaning Fresh material: Warm water Hardened material: Mechanical  
 Salt spray test DIN 50021: Up to 240 Hours Ri 0 at  $350 \mu$  dry layer DIN 50021: Up  
 to 480 Hours Ri 0 at  $350 \mu$  dry layer + paint Gravel test SAE-J400 method: 7A - 7B  
 At  $350 \mu$  dry layer thickness Bending test DIN 53152 (+70°C): No cracks, no loss of  
 adhesion DIN 53152 (-30°C ): No cracks, no loss of adhesion Adheres on:  
 Galvanised steel, aluminium, stainless steel and wood Adhesion DIN 53151: Gt 0  
 on several surfaces DIN 53151: Gt 0 with 2K-acryl system DIN 53151: Gt 0 with  
 Basecoat system DIN 53151: Gt 0 with Water based system DRYING: At  $\pm 500 \mu$   
 wet layer (1 cross-layer) Temperature: 20°C - Time: 60-120 minutes Temperature:  
 60°C (Oven) 1) - Time: 15 - 20 minutes Temperature: 60°C (IR) 1)+2) - Time: 10 -  
 15 minutes <sup>1</sup> let it evaporate for about 10 minutes <sup>2</sup> minimum distance 50 cm When  
 thicker layers are applied we recommend a drying time of 12-24 hour (overnight) at  
 room temperature. Overpaintability After KS - 4000 has completely dried it is  
 overpaintable with either 2K-acrylic and basecoat systems as well as water based  
 lacquers. The adhesion of the lacquers has been tested after 24 hours according  
 ISO 2409 with Gt 0 as result for each lacquer system. It is possible to mix KS -  
 4000 with water based lacquers up to 30%, so afterward minor scratches will not  
 directly be visible and one layer usually is enough. Until 10% the mixture is spray  
 able with an air mix- and pressure gun. With more than 10% lacquer the mixture is  
 spray able with a normal lacquer gun. Take into account that the product mixed  
 with lacquer has a lesser structure and sag-resistance.

## HANDLING

Processing: Shake before use. The surfaces to be treated must be dry, rust- and grease  
 free. Spray the coating on the surfaces to be treated with a hand- and pressure gun with  
 an air-pressure of 4 till 6 bar. The optimal spraying distance is approximately 20-30 cm.  
 The product dries a room temperature. For a quicker drying it is possible to apply oven-  
 or IR drying at a maximum temperature of +60°C after a let down of the wet film for about  
 10 minutes. KS - 4000 is overpaintable after 1 – 2 hours (dried at 20°C) with all  
 conventional solvent based and solvent free lacquer systems. The product can be



02/2018

sprayed haze free without any cob webbing and does not drip. Contaminated surfaces and filthy equipment can be simply cleaned in "fresh" condition with hot water. Before overpainting with synthetic resin based lacquers the surface must be allowed to dry completely. When applying 2 comp., base coat or water based lacquers the surface must be primed with CS Kunststoff-Haftvermittler-SPRAY ML400 and allowed to flash off/dry before painting.

## PRECAUTIONS

The product is frost sensitive and may not be stored under +10°C and above +30°C. The packaging must be protected from direct sunlight and heat. Cool and moisture free stored the product is tenable for a maximum of 1 year in the unopened original packaging.

## SAFETY ISSUES

The before mentioned technical data and information, especially the recommendations for applying and using our products, are based on our current knowledge and experience when applied under normal conditions. In practice, the materials, surfaces or site conditions are so different that no warranty regarding the working results or liability, arising out of any relationship, can be inferred neither from this information nor from a verbal consultation, except we are charged with intent or gross negligence. In this case the user is obliged to prove that he has informed us about all points required for a proper and promising judgement in writing, in time and completely. Patent rights of any third party are to be observed. Furthermore, our general sales and delivery Terms and Conditions and the latest Technical Data Sheet, which should be demanded, apply. Directions for handling and waste disposal are in our Material Safety Data Sheet and the specifications of the Employers Liability Insurance Association for the chemical industry. Copyright VOSSCHEMIE