

:: 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 $\frac{1}{2}$)
Viscosity (20°C) Brookfield (after 24 hr + mixing): 96 - 128 Pas (Spindle 5 / V $\frac{1}{2}$)
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 $\pm 20^{\circ}\text{C}$, 65% RH: 60 - 120 Minutes ($\pm 500 \mu$)
At $\pm 60^{\circ}\text{C}$ (oven): 15 - 20 Minutes ($\pm 500 \mu$)
At $\pm 60^{\circ}\text{C}$ (IR): 10 - 15 Minutes ($\pm 500 \mu$)

Curing time
At $\pm 20^{\circ}\text{C}$, 65% RH: 6 - 8 Days ($\pm 500 \mu$)

Printability ($\pm 20^{\circ}\text{C}$, 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 $+120^{\circ}\text{C}$

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 µ dry layer

DIN 50021: Up to 480 Hours Ri 0 at 350 µ dry layer + paint

Gravel test

SAE-J400 method: 7A - 7B At 350 µ 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 ± 500 µ 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

¹ let it evaporate for about 10 minutes

² minimum distance 50 cm



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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 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



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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.

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