

Knaphen 1 K

Technical Information Page



Product presentation

It is a one-component aliphatic acrylic polyurethane paint. It has a shiny appearance and is able to retain its shine for a long time. It has a high chemical resistance. It can be used as a final layer on metal surfaces.

Surfaces to be used

It can be used on steel structures and metal surfaces where corrosion resistance is required according to C4, C5I, and C5M (ISO 12944-2) standards. It is particularly recommended to paint the metal structures of industrial premises, warehouses, bridges, buildings, and tanks, ships, underwater metal structures and electric power plants.

Film thickness and theoretical spreading area

	Minimum	Maximum	Recommended
Film thickness, dry (μm)	42	67	60
Film thickness, wet (μm)	75	120	107
Theoretical spreading area (m^2/l)	13.4	8.4	9.4

Physical properties

Color		Ral colors
Solid content	ASTM D2697-03	63% \pm 2 (by volume)
Density (gr/sm^3)	ASTM D1475-13	1.16 \pm 0.02
Viscosity (25°C) KU	ASTM D562-10	70 \pm 5
Flash point	ISO 3679	26°C \pm 2
Brightness (GU 60°C)	ASTM D523-14	Bright (70-100)
Thinner		It should be thinned with 5-10% Acrylic Thinner

All results may have slight color differences.

Surface preparation

All surfaces must be clean, dry and free of dirt. The surface should be evaluated according to the ISO 8501 standard and prepared accordingly.

- **Painted surface** – The surface must be dry and clean. Primer or padding must be applied before painting. The old paint should comply with the ISO 12944 standard.

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Ways to use

Spraying	An airless or conventional pistol can be used.
Brush	It is recommended for cuttings and application in small areas. Attention should be paid to the application at the specified film thickness.
Roll	It can be used. Attention should be paid to the application at the specified film thickness.

Application information with a hydraulic gun

Nib	0.33 – 0.48 mm (0.013-0.019")	Pressure	15 MPa/2100 psi
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Drying time

Drying time mainly depends on the weather conditions, the thickness of the applied layer, and the number of coats applied. The table below shows the approximate drying time of the paint depending on the air temperature.

- The area to be painted should be well-ventilated (open air or free air circulation).
- Paint should be applied at the recommended thickness.
- The thickness should be applied taking into account the number of applied layers.

Air temperature	10°C	23°C	40°C
Upper drying	2 hours	1 hour	30 min.
Hard drying	16 hours	8 hours	4 hours
Complete (hard) drying	10 days	5 days	2.5 days
Applying the second layer, at least	10 hours	5 hours	2.5 hours

The above information was determined by following the rules. Drying time may increase or decrease depending on film thickness, ventilation, surface painting system, painting operations, mechanical stability and amount of thinner added.

Product compatibility

The paint can be used with various primers and final layers. Some of them are shown below. For more accurate systems, it is recommended to contact our company:

First coat: zinc epoxide, epoxide, epoxide putty, polyurethane

Next layer: acrylic polyurethane

Typical paint system

Knarr Zinkomastik EZP	1 x 100 µm
Knarr Zinkomastik MIO	1 x 100 µm
Knarr Knaphen 1 K	1 x 60 µm

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Other systems may be determined by application area.

Storage conditions

Paint should be stored in a dry, cool, well-ventilated, covered warehouse that is heat and non-sparking, subject to area conditions. It should be mixed well before use. Containers should be tightly closed. Shelf life (at 23°C) - 24 months.

Packing form

It is produced as 13 kg.

The implementing operator

This product is intended for professional use. The applicator or operator should be experienced and knowledgeable about the product. The mentioned person should mix and apply the paint according to the specification. Workers participating in the application should be provided with protective equipment.

Product color

There may be minor differences in product color from batch to batch.

Attention

The above information is compiled on the basis of the results obtained from laboratory testing and field applications. In applications not under the control of the company, the company is only responsible for the quality of the paint. The company is not responsible for problems that may arise due to implementation and application errors.

Health and safety regulations

Follow the instructions on the container. Store in warehouses where there is no possibility of exposure to high temperatures and sparks. Use in well-ventilated areas. In case of skin contact during use, wash with a suitable solvent and then with soap and water. In case of contact with eyes, rinse with plenty of water and seek medical advice if necessary.

Note: "CMT Group" LLC reserves the right to change the information on the technical data page without notice.

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