

Knaphen A440

Technical Information Page



Product presentation

It is a two-component aliphatic acrylic polyurethane paint. It has a shiny appearance and is able to retain its shine for a long time. 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 in accordance with C4, C51 and C5M (ISO 12944-2) standard is required. It is particularly recommended to paint the metal structures of industrial premises, warehouses, bridges, buildings as well as tanks, ships, underwater metal structures and electric power plants.

Film thickness and theoretical diffusion area

| | Minimum | Maximum | Recommended |
|--|---------|---------|-------------|
| Film thickness, dry (μm) | 23 | 100 | 60 |
| Film thickness, wet (μm) | 75 | 322 | 194 |
| Theoretical diffusion area (m^2/l) | 13.5 | 3.1 | 5.2 |

Physical properties

| | | |
|-------------------------------------|---------------|---|
| Color | | Resin colors |
| Solid content | ASTM D2697-03 | 31% \pm 2 (by volume) |
| Density (gr/sm^3) | ASTM D1475-13 | 1.08 \pm 0.02 |
| Viscosity (25°C) KU | ASTM D562-10 | 90 \pm 5 |
| Ignition degree | ISO 3679 | 30°C \pm 2 |
| Brightness (GU 60°C) | ASTM D523-14 | Brightly (70-100) |
| Mixing life (23°C) | | 10 hours |
| Mixing ratio (by mass) | | 4 pieces A Komp., 1 piece B Komp. |
| Thinner | | Must be thinned with 5-10% epoxy thinner. |

All results are mixed (A+B) and 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 primer must be applied before painting.

The old paint must comply with the ISO 12944 standard.

Ways to use

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

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Application information with a hydraulic gun

| | |
|-----------------|-------------------------------|
| Nib | 0.38 - 0.48 mm (0.015-0.019") |
| Pressure | 15 MPa/2100 psi |

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

| Air temperature | 10°C | 23°C | 40°C |
|--|-------------|-------------|-------------|
| Upper drying | 1 hour | 45 min | 30 min |
| Hard drying | 4 hours | 3 hours | 2 hours |
| Complete (hard) drying | 14 hours | 10 hours | 8 hours |
| Applying the second layer, at least | 4 hours | 3 hours | 2 hours |

The above information was obtained in accordance with 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 finishes. Some of them are shown below. For more accurate systems, it is recommended to contact our company:

Front coat: zinc epoxide, epoxy, epoxy putty, polyurethane

Typical paint system

| | |
|---|------------|
| Knarr Zinkomastik UNL 90 | 1 x 100 µm |
| Knarr Zinkomastik UNL 90 | 1 x 100 µm |
| Knarr Knaphen A440 | 1 x 60 µm |
| Other systems may be determined by the scope. | |

Storage conditions

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

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Packing picture

It is produced as 16 KG Component A and 4 KG Component B.

Implementation operator

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

Product color

There may be slight variations in product color from batch to batch.

Attention

The above information is based on results obtained from laboratory testing and field testing. In applications not under the control of the company, the responsibility for the quality of the paint lies solely with the company. It is not responsible for problems that may arise due to implementation and application errors.

Safety and health 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 prior notice.

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