

MINING

Cement KL

ANCHORING GROUT

DESCRIPTION

Cement KL is a one component cement-based adhesive for fixing rope-anchors into predrilled holes at any inclination, including vertical holes. It is available as a ready-mix prebatched powder, when mixing in the appropriate proportions with water, forms a thixotropic ready-to-use grout.

APPLICATION AND USE

- Cementing of cable-, string-, bolt- and injection anchors
- Bonding of cuttable wooden and GRP anchors
- Grouting
- Filling backfill bullflex bags between the arch support and the strata
- Sealing of insulation stoppings

ADVANTAGES

- Ease of use - injection by means of an easy-to-operate pump
- Durability - the hardened adhesive is resistant to aggressive mine waters
- Anchor protection – high pH of grout protects the metal anchor against corrosion
- Low costs - the material does not flow out, even in case of vertical holes
- Non-flammable



TECHNICAL DATA

The data below are laboratory data. They may vary in practice due to surface properties of the substrate, humidity, pressure, and other factors.

PRODUCT CHARACTERISTICS

Parameter	Details
Compressive strength ¹ after 24 hours after 3 days after 28 days	35 MPa 60 MPa 70 MPa
Flexural strength ¹ after 24 hours after 3 days	7.5 MPa 10 MPa
Fresh grout density	2050 ± 50 kg/m ³
Flowability	180 mm
Chloride ion content	≤ 0.5%
Reaction to fire	A1

COMPONENT CHARACTERISTICS

Parameter	Details
Colour / form	grey powder
Amount of water per 25 kg bag	7 liters
Pot life at 20 °C ¹	30 minutes
Output / Yield	1.6 kg / liter

1. 20 °C, w.s.r. 0.35

APPLICATION METHOD

1. Preparation of the substrate

It is favourable to flush the hole with water before placing the adhesive in it, especially when applied on highly water-absorbing rock (limestone, some shales, sandstones with a large share of carbonate binder). Keep the surface moisten but with no film of water before application. Note: it does not apply to salt rock. In this case clean the borehole with compressed air (without oil or water).

In case of active water leakage seal the borehole with injection (PUR resin Ekopur HW or silicate resin Krzemopur HS).

To limit losses in fractured strata or in cavities Grout Sock can be employed.

2. Mixing and application of mortar

Mix the Cement KL with 7 liter of water per 25 kg bag. Do not exceed 9 liter of water per bag. Pour powder to pre-batched water and mix. Mixing time is at least 3 minutes.

Prepared material is pumped into the holes with help of a pump meant for high-viscosity suspensions (i.e. Wedgrip Universal Grout Pump System; IBO-REP; MV-2). Immediately after the filling borehole, insert the anchor. For injection anchors pump a grout to the anchor until the grouts start to flow from the borehole. The pot life of a single batch is approximately 30 minutes.

3. Curing

Exposed surface should be prevented from premature evaporation of water e.g. by covering with a plastic sheet in case of necessary.

4. Cleaning of tools and other equipment

After use immediately clean all the mixing equipment with water. If necessary, remove mechanically all the remnants of hardened mortar.

SAFETY INSTRUCTIONS AND LIMITATIONS

It is recommended that gloves, eye protection and a dust mask are used when handle Cement KL. For more details refer to our Material Safety Data Sheet.

The material should not be applied when the substrate and/or air temperature is 5°C and falling. At 5°C static temperature or at 5°C and rising, the application may proceed. At ambient temperatures above 35°C, the material should be stored in the shade and cool water should be used for mixing.

PACKAGING AND TRANSPORTATION

25 kg valve sack, 40 bags per pallet 1000 kg. Other packing on request.

STORAGE AND SHELF LIFE

Shelf life 6 months when stored in dry and cool conditions.

DISPOSAL

Follow local regulations.

- SWEDEN / NORWAY: Minova Nordic AB
- UNITED KINGDOM: Minova Weldgrip Ltd.; Minova International Ltd.
- APAC: Minova Australia Pty Ltd.
- AMERICAS: Minova USA Inc.

APPROVALS AND CERTIFICATES

1. Mining Certificate B/1490/V/2018
2. Hygienic Certificate HK/B/1095/05/2015

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ADDITIONAL DOCUMENTATION

- Cement KL MSDS

LIST OF REPRESENTATIVES

- AUSTRIA: Minova MAI GmbH
- CZECH REPUBLIC: Minova Bohemia s.r.o.
- FRANCE / BELGIUM: Sales office Minova France / Belgium
- GERMANY: Minova CarboTech GmbH
- ITALY: Minova CarboTech GmbH Italy branch
- KAZAKHSTAN: Minova Kazakhstan LLP
- POLAND: Minova Ekochem S.A.; Minova Arnall Sp. z o.o.; Minova Ksante Sp. z o.o.
- RUSSIA: ZAO "Carbo-ZAKK"
- SLOVAKIA: Minova Bohemia s. r. o., organizačná zložka
- SOUTH AFRICA: Minova Africa (Pty) Ltd.
- SPAIN: Minova Codiv S.L.U.

CUSTOMER SERVICE

For additional support options available at your area, contact our local offices.

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