

## KA&MELOCK KM 22

### Speciality Bonding Agent for Fluoro Rubber

#### DESCRIPTION

KA&MELOCK KM 22 is formulated as a one-coat adhesive for bonding fluorocarbon rubber to a wide range of metals, plastics and textiles. It contains heat responsive polymers in the solvent dispersion.

KA&MELOCK KM 22 is a one-coat bonding agent used to bond fluoroelastomers (FKM) to metal and a variety of other substrates during the vulcanization process.

KA&MELOCK KM 22 is designed to bond difficult-to-bond fluorocarbon polymers, but can also be used to bond some difficult elastomers, including silicones. The bonding process occurs during rubber vulcanization, typically between 140–180 °C. The bond formed shows excellent resistance to water, oils, lubricants and other corrosive liquids.

#### PREPARATION STAGES OF METAL SURFACES BEFORE APPLICATION

The metal surface must be completely cleaned before applying the adhesive. A good preparation of the metal surface is required to obtain a good metal/rubber bond and to be resistant to water and corrosion. The oxide layers on the metal surface should be mechanically cleaned. The metal surface is basically prepared by two methods.

- **Mechanical Cleaning:**

Grit blasting is a recommended method of metal cleaning. Steel grit is used to blast clean steel, cast iron; for other nonferrous metals, the use of aluminum oxide is recommended.

Layover time between blasting and adhesive application should be kept to a minimum in order to avoid oxidation.

- **Chemical Cleaning:**

The process of preparing the metal surface chemically requires a different application for each metal group. Phosphating is a widely used chemical process for steel.

#### APPLICATION

**Mixing** – KA&MELOCK KM 22 should be stirred thoroughly before use and during using to keep dispersed solids uniformly suspended.

**Applying** - Brush, roller, dipping or spraying methods can be applied for KA&MELOCK KM 22

For solvent additions up to 15%: Either MEK or ethanol may be used. However, when MEK is used, subsequent filtration is mandatory due to potential residue formation.

For solvent additions exceeding 15%: Only ethanol shall be used.

For the recommended coating thickness of approximately 5–8 µm.

**Drying**– Allow applied bonding agent to air-dry for approximately 15 minutes at ambient temperature. Porous substrates may require a longer time for the solvent to completely evaporate

For post-curing of parts, temperatures up to 220 °C are acceptable, without any negative effect on bonding properties. The bond offers excellent temperature resistance.

Post-curing can be done at temperatures of to 220° C, but this should be reached gradually, not abruptly. For instance, 100° C – 120° C – 160° C – 180° C, each for 20 minutes; and then 8 to 10 hours at 220° C.  
**Clean Up-** Use MIBK or MEK for clean-up.

#### TECHNICAL DATA\*

Colour	<b>Brown Liquid</b>
Viscosity 4 mm DIN-Cup	<b>10-14 s</b>
Viscosity,cps@25°C(77°F) Brookfield SNB1 Spindle 2, 30 rpm	50 - 120 mPas
Specific Gravity	<b>0,82- 0,86 g/cm<sup>3</sup></b>
Solid Content	<b>11-15 % by weight</b>
Solvents	<b>Methyl Isobutyl Ketone (MIBK), Methyl Ethyl Ketone (MEK)</b>

\*Data is typical and not to be used for specification purposes.

#### CAUTIONARY INFORMATION

Before using this product, please refer to the Safety Data Sheet for safe use and handling instructions.

#### SHELF LIFE / STORAGE

Keep the container tightly closed and away from heat sources. Maximum temperature storage is 25°C. Shelf life is 9 months from date of manufacture when stored below 25 °C, unopened container. Remove only as much KA&MELOCK KM 22 from the original drum as will be consumed during the next shift. **Under no circumstances must unused material be returned to the original container!!!** Generally, vulcanizing conditions (temperature, pressure, duration) recommended by the rubber supplier should be adhered to.

Avoid storing coated parts for more than one week. Complete any further work on these parts within such time.

#### ADDITIONAL INFORMATION

For more information on this and other products, please contact us: [info@wbkim.com.tr](mailto:info@wbkim.com.tr)

The above information and recommendations contained are based on our knowledge and experience. Beyond our control due to different materials and conditions of application for our products, processes and applications will be used when appropriate in order to make sure that we strongly advise that adequate testing is performed.