

TECHICAL DATA SHEET

KA&MELOCK KM 28



ELASTOMER BONDING AGENT

DESCRIPTION

KA&MELOCK KM 28 is a one-coat Bonding Agent formulated for bonding of VMQ (Silicone Rubber Peroxide-based) to a wide range of metals, plastics and textiles.

An excellent bond is achieved, as well as excellent corrosion, oil and gasoline resistance.

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. The process applied under the paint in the aluminum surface coating process is called chromate.

APPLICATION

Applying - Brush, roller, dipping or spraying methods can be applied for KA&MELOCK KM 28.

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|------------|-----------|
| • Brushing | Undiluted |
| • Dipping | Undiluted |
| • Spraying | Undiluted |

For the recommended coating thickness of approximately 1-4 μm .

To make KA&MELOCK KM 28 film visible on metal, savinyl blue RS or savinyl orange RLS can be used as a colorant. Slowly add 0.1% colorant, by weight, while stirring bonding agent. Thoroughly mix until colorant is completely dissolved.

After application, allow the bonding agent to dry naturally for about 15 minutes at room temperature. In the case of porous surfaces, a longer drying period may be required to ensure that the solvent has fully evaporated. The coated components may also be dried at elevated temperatures up to 90°C (194°F) using a hot-air oven or a drying tunnel.

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Following the drying stage, coated metal components should be processed without delay to minimize the risk of corrosion. If immediate processing is not possible, the coated parts can be stored for up to 48 hours in a clean, dry, and grease-free environment. However, prolonged storage may reduce the bonding performance because the bonding agent gradually reacts with moisture present in the surrounding air.

The bonding process is completed during the rubber vulcanization stage, typically carried out at curing temperatures between 140°C and 200°C (284°F–392°F), in accordance with the rubber manufacturer's recommendations. For components that require post-vulcanization, the temperature should be increased gradually at a rate of 5–15°C (9–27°F) per hour. This controlled heating allows volatile compounds trapped within the vulcanized material to diffuse out safely. The maximum post-curing temperature depends on the formulation of the rubber compound and is generally 200–210°C (392°F–410°F) for fluoroelastomer materials.

The shelf life of product after coating is 7 days.

TECHNICAL DATA*

Colour	Clear Colorless Liquid
Density	0,83 – 0,87 g/cm ³
Solid Content (30 min at 130°C)	5 - 7 % by weight
Solvents	Ethanol

*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 one year from date of manufacture when stored below 25 °C, unopened container.

ADDITIONAL INFORMATION

All temperature, time, dilution, and thickness parameters provided in the TDS are recommended values, and it is advised to determine the appropriate range according to your specific application method and suitability.

For more information on this and other products, please contact us: bonding@gotec-group.com

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.