

KORASILON[®] Pasten

Depending on the type, **KORASILON® Pasten** are stable at temperatures ranging from -50 °C to more than 300 °C without showing significant changes in consistency. The Volatile content within the mentioned temperature interval – even for longer exposure periods – are in range of a few percent.

KORASILON® Pasten show thixotropic behavior. The viscosity is decreasing while applying mechanical stress. The initial consistency is restored after a sufficient rest period. This characteristic of **KORASILON®** Pasten can be advantageous e.g. for applying the product to various surfaces, ensuring good spreading without the risk of uncontrolled dripping.

The following diagram shows the impact of shear stress on the viscosity of a typical **KORASILON®** Paste and the recovery process as well as the limited temperature dependency of this behavior. The gradient is like a hysteresis and shows an almost reversible behavior.



Figure 1: Intrinsic viscosity behavior of KORASILON[®] Pasten

Application:

The pastes are excellently suitable as glide-, lubricant- and release agent for e. g. vales, joints and gaskets, ground joints, cables and wires. They are frequently also used as assembly aid as well as protection- and sealing aid. Furthermore, we recommend our pastes for maintaining rubber seals. In electronics, they find their use for the assembly of insulators and switchgears amongst others.

KORASILON® Pasten are exceptional hydrophobic and practically insoluble in water. Additionally, these pastes do neither melt on exposure to hot steam nor do they evaporate. They are chemically indifferent towards metals and compatible with a wide range of plastics. Compatibility tests are recommended prior to contact with silicones elastomers.

KORASILON® Pasten have proven – unlike many non-silicon products – to be usably even under extreme conditions (e. g. very high and low temperatures, exposure to salt-water).



TYPE OVERVIEW

KORASILON® Pasten M-Series

These Types are based on polydimethylsiloxanes and low quantities of special inorganic thickeners. The products of the <u>*M-Series*</u> are available with different penetration values and consistency. The penetration values are indicated by the numbers given in the product name.

KORASILON® Pasten M-S 1-Series

Provide excellent brushability. The products show a soft and smooth consistency.

Types:

KORASILON[®] Paste M-S 1-230 KORASILON[®] Paste M-S 1-270

KORASILON® Pasten M-S 2-Series

Provide excellent stiffness and adhesion due to their high shear stability.

Types:

KORASILON[®] Paste M-S 2-200 KORASILON[®] Paste M-S 2-270 KORASILON[®] Paste M-S 2-300

Special Applications:

KORASILON® Pasten der M-Reihe are used successfully where easy movement is required, e. g. taps, drain fixtures, vending machines. Also for the mounting of plastic pipes, rubber seals and rubber articles the pastes have proven to be suitable.

KORASILON[®] Paste P-S 250

This product consists of phenyl-modified polysiloxanes and low quantities of special inorganic thickeners. They meet special requirements regarding temperature and chemical stability. In some cases, the better lubricity compared to pastes of the <u>M-Series</u> can be crucial for choosing the right product. In addition, **KORASILON® Paste P-S 250** shows a more intensive brilliance and the treated parts remain varnishable, gluable or printable. Compatibility tests are recommended.

For the use for silicone-based cable coverings, **KORASILON®** Paste P-S 250 is recommended due to the non – or only low - swelling behavior. This product has proven good compatibility with typical polydimethylsilicone-based and non-silicone insulation material.



KORASILON[®] Paste AA-S 250

This product is based on organo-modified polysiloxanes and low quantities of special inorganic thickeners. The main applications of **KORASILON® Paste AA-S 250** are as assembly aid, protection- and sealing compound for switchgears in electrical engineering as well as in the area of permanent lubrication. This product does not show any – or just very low – significant influence on swelling of silicon rubber tubes or seals. Therefore treated parts can easily be disassembled.

The treated parts in generally remain varnishable, gluable or printable. Typical incompatibilities (e.g. orange peel and dimples) do not occur. Compatibility tests are recommended.

Special Applications:

KORASILON® Paste AA-S 250 is suitable for treatment of insulations and equipment connections. By the use as sealing agent for cable joints and cable ends the connections remain – even after long time periods - easily removable.

Special formulations

In addition to the products already described, custom made modifications **KORASILON®** Pasten are available on request. Especially, the penetration value can be adjusted to meet requirements for processing and stability. The thickener can also be changed through whereby an improved lubrication effect is achieved at certain applications.

An example for this is **KORASILON[®] Paste M-B 2-285**, which is used in the area of the damper springs. Furthermore the sliding friction and separating qualities can be improved considerably by special additives.

If you are interested in these products or special preparations, please contact our distribution personnel or our application specialists.





Material compatibility*	Pastes		Paste	Paste
	NV*, MV* u. HV*	M-S	AA-S 250	P-S 250
Rubber				
Ethylene-propylene-diene rubber (EPDM)	+	+	+	+
Chloroprene rubber (CR) respectivly Neoprene	+	+	+	+
Acrylonitrile butadiene rubber (NBR)	+	+	+	+
Urethane rubber (AU)	+	+	+	+
Styrene-butadiene rubber(SBR)	+	+	+	+
Natural rubber (NR)	+	+	+	+
Ethylene-Vinylacetate-rubber (EVAC)	+	+	+	+
Butyl rubber (IIR)	+	+	+	+
Chlorosulfonated polyethylene (CSM)	+	+	+	+
Naturral cork	+	+	+	+
Fluorocarbon rubber (FPM)	+	+	+	+
Buna N (Nitrile)	+	+	+	+
Hypalon®	+	+	+	+
Tygon®	+	+	+	+
Viton®	+	+	+	+
Silicone rubber (Q)++	-	-	+	+
Metals				
Steel	+	+	+	+
Cupper	+	+	+	+
Aluminium	+	+	+	+
Cast Iron	+	+	+	+
Titanium	+	+	+	+





Material compatibility*	Paste	es	Paste	Paste
	NV*, MV* u. HV*	M-S	AA-S 250	P-S 250
Resins				
Epoxy resin	+	+	+	+
Phenolic resin	+	+	+	+
Polyamide	+	+	+	+
Plastics				
Acetal (Delrin [®])	+	+	+	+
CPVC	+	+	+	+
Ероху	+	+	+	+
Hytrel®	+	+	+	+
NORYL®	+	+	+	+
Nylon	+	+	+	+
Polycarbonate	+	+	+	+
Polypropylene	+	+	+	+
PPS (Ryton [®])	+	+	+	+
PVC	+	+	+	+
PVDF (Kynar®)	+	+	+	+
LDPE	+	+	+	+
ABS plastics	+	+	n. d.	n. d.





Registrations	Pastes		Paste	Paste
	NV*, MV* u. HV*	M-S	AA-S 250	P-S 250
BfR-Recommendation no. XV Silicone	+	+	-	-
FDA 178.3570 "Lubricants with incidental food contact"	+	+	-	-
RoHS-conform	+	+	+	+
NSF-H1	-	only M-S 2 Reihe	-	-

Inventories	Pastes		Paste	Paste
inventories	NV*, MV* u. HV*	M-S	AA-S 250	P-S 250
EINECS/ELINCS	+	+	+	+
TSCA	+	+	+	+
PICCS	+	+	+	+
DSL/NDSL	+	+	+	+
ENCS	+	+	+	+
AICS	+	+	+	+
KECL	+	+	+	+
IECSC	+	+	+	+
NZIOC	-	-	-	+





Characteristics*	Pasi	tes	Paste	Paste
	NV*, MV* u. HV*	M-S	AA-S 250	P-S 250
Static penetration according to Klein in 1/10 mm	300, 270, 200	indicated by the numbers given in the product name	250	250
Chemical classes	PDMS	PDMS	modified polysiloxane	phenyl-siloxane
Thickener/Retarder	Silica			
Density at 25 °C in g/cm ³	approx. 1.0			
Stability at 30 h/200 °C	Stable, no flow behavior			
Pour point in °C	approx30 °C to -50 °C			
Thermal conductivity in W m ⁻¹ K ⁻¹	approx. 0.15			
Electrical resistance at 25 $^\circ\text{C}$ in Ωcm	approx. 10 ⁻¹³			
Temperature min/max in °C	-40/+200	-40/+200	-40/+200	-40/+300
Color	colorless	colorless	colorless	colorless



Packaging

All products are available in the following packaging sizes:

- Collapsible tubes with 35 g, 40 g, 50 g, 90 g and 100 g
- Plastic cans with 250 g, 500 g and 1000 g
- Steel open-lid-drums with 5 kg, 10 kg, 25 kg, 50 kg and 200 kg

Special packaging is available on request.

Further information on product safety and handling is given in the Material Safety Data Sheet.

This information and our technical advice – whether verbal, in writing or by way of trials – are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to check its validity and to test our products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Our products are sold in accordance with our General Conditions of Sale and Delivery; this is not valid for our trial products

*Informative properties not intended to be used as product specification

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