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**TECHNICAL
DOCUMENTATION****SÄKA-Silicone Grease 81
Article No. 81-750****Erosion-resistant and hydrophobic protection for high-voltage insulators**

SÄKA-Silicone Grease 81 is recommended for highly contaminated areas to protect insulator surfaces from arcing and its consequent failures. A layer thickness of approx. 0.3 mm is guaranteeing protection for a long time.

SÄKA-Silicone Grease 81, developed in long-termed tests, is a transparent, poisonless substance of unctuous consistence on basis of pure methylpolysiloxane of definite viscosity with little quantities of inorganic thickeners. SÄKA-Silicone Grease 81 has good behaviour properties, that means permanent layer thickness.

SÄKA-Silicone Grease 81 is resistant to temperatures from -40°C up to $+200^{\circ}\text{C}$, and there is no relevant change in consistency.

SÄKA-Silicone Grease 81 is strong hydrophobic, insoluble in water and will not be changed by hot vapour. Metals, plastic, glass and ceramics are not attacked.

SÄKA-Silicone Grease 81 is physiologically unobjectionable.

Characteristics:

Density at 20°C :	approx. $1\text{g}/\text{cm}^3$
Flashpoint:	$> 300^{\circ}\text{C}$
Ubbelohde melting point:	up to 220°C no melting point (but in case of more than 220°C : beginning of decomposition)
Acid number:	approx. 0.5
Dielectric constant ϵ_r :	approx. 3.0 at approx. 50 Hz and 20°C
Specific resistance:	$\delta 20^{\circ}\text{C} = 10^{15}\ \Omega/\text{cm}$
Dielectric loss factor $\tan \delta$ at 20°C :	below 0.002
Breakdown voltage at 50 Hz and 20°C :	approx. 100KV / cm
Ash percentage:	33 %
Solidification point:	approx. -40°C
Loss in weight after 30 hours at 200°C :	below 3 %

Gladbeck, January 2005