

SÄKA Cleaning Paste 80

SÄKA Silicone Grease 81

Reliable and long lasting protection

The SÄKAPHEN® cleaning system consisting of SÄKA 80 Cleaning Paste and SÄKA 81 Silicone Grease allows easy cleaning and protection of ceramic, glass or plastic high voltage isolators.

The long lasting protection avoids flashovers and ensure improved safety levels



Ensure Safe Energy Transmission

with **SÄKAPHEN** products

for all high voltage isolators



SÄKA Cleaning Paste 80

1 Increasingly aggressive environments

High voltage isolators are subject to an increased chemical attack generated by dust, exhaust, corrosive products, salt and other air contaminants (Sulphur dioxide, fluorhydric acid, etc..). Erosion also damages the surface of isolators.

2 High voltage isolators reliability issues

Uneven and polluted surface of high voltage isolators generate an ideal support for the generation of deposits of air-transported contaminants. In dry condition, deposits limit the isolation effect. In wet conditions, a thin layer of water may be generated, favoring the crystallization of salts. Once high salt concentration is reached, the combination of solid conductive particles generates flashovers with significant detrimental effects to the electric grid.

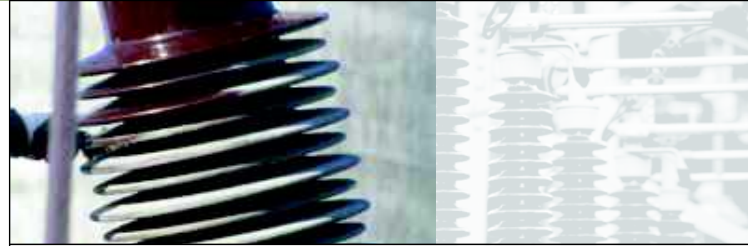
3 SÄKAPHEN as a reliable solution for grid efficiency

SÄKA 80 Cleaning Paste is the result of long term laboratory and field tests. It is suitable for cleaning and sealing of heavily soiled, smooth and scratch resistant surfaces, achievable in most cases with one application only.

Field results

Tests run by energy transmission and distribution companies on ceramic high voltage isolators

KV		Tgδ (%) Permittivity		C (pF)		GΩ Surface resistance	
Before	After	Before	After	Before	After	Before	After
63,5	63,5	3,52	0,042	5,29	5,29	18,8	1557
100	100	3,60	0,043	5,29	5,29	18,3	1540
130	130	3,75	0,043	5,29	5,29	17,5	1540
200	200	4,25	0,043	5,29	5,29	15,5	1540



4 Operational advantages

SÄKA 80 Cleaning Paste also removes paint drops resulting from maintenance works on pylons. The product is physiologically harmless. No protection is needed.

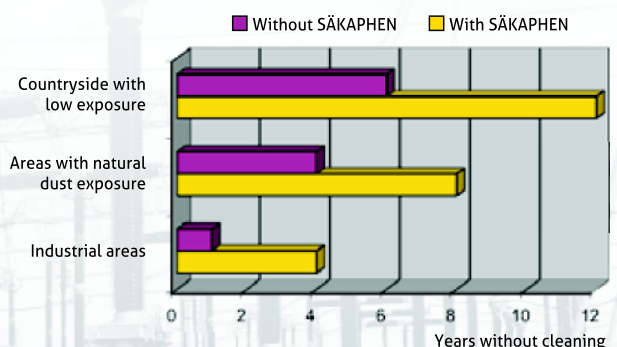
SÄKA 80 Cleaning Paste allows the rapid and effective removal of dirty surfaces. The paste also creates a silicone resin protective layer that is water and dirt repellent. As a result, protection is long lasting and reliable avoiding the formation of the conductive water layer.

SÄKA 80 Cleaning Paste increases the surface resistance, reducing the energy loss of energy grids.

Cleaning is extremely simple. It is sufficient to remove the superficial dust with a cloth. Then, the lightly abrasive SÄKA 80 Cleaning Paste removes the more resistant dirt. Finally, polish the surface with a clean cloth.

Over the past decades, power plants, electric power stations, public utilities and railways have used SÄKA 80 Cleaning Paste to successfully protect ceramic, glass or plastic insulators.

Effects of SÄKAPHEN cleaning paste on cleaning cycles of high voltage insulators



SÄKA Silicone Grease 81

**Protective, erosion resistant,
water-repellent layer**

Operational Advantages:

- 1** In highly polluted areas, after the application of the Cleaning Paste, we recommend the application of a SÄKA Silicone Grease 81. Easily applied with a soft brush or a cloth approx. 0.3 [mm] thickness and polished briefly thereafter, it extends the protection.
- 2** SÄKA Silicone Grease 81 is also the result of long-term laboratory and field tests. It is a non-toxic transparent protective layer based on high purity methylsiloxane. The formulation of a specific viscosity, which is controlled via inorganic fillers, allows the application of a uniform protective layer.
- 3** SÄKA Silicone Grease 81 may be used at operating temperatures ranging from -40°C to +200°C without any change in its properties.
- 4** SÄKA Silicone Grease 81 is highly water repellent, insoluble in water and is not damaged by vapor. It does not damage surfaces made of metal, plastic, glass and ceramic. The product is physiologically harmless.

Technical Data

Properties of the protection film after cleaning and sealing

Density at 20°C	Approx. 1 g/cm ³
Flame point	> 300°C
Drop point up to 220°C acc. to Ubbelohde	No drop point
Acid value	Approx. 0.5
Dielectric constant	About 3.0 at approx. 50 Hz and 20°C
Specific resistance 20°C	10 ¹⁵ Ωm
Dielectric loss factor tan at 20°C	less than 0.002
Disruptive strength at 50 Hz and 20°C	Approx. 100 KV/cm
Ash content	33%
Solidification point	Approx. -40°C
Weight loss after 30 hrs. of heating to 200°C	Less than 3%

Visit www.donelli.it
for a demonstrative video





Areas of use

These products, developed by SÄKAPHEN laboratories, have been used in Europe and worldwide by the major players in these industries:

Energy

The use of SÄKAPHEN cleaning system will allow the electricity industry a saving of 50-75% of their cleaning costs compared with conventional mechanical cleaning methods.

Railway Infrastructure

SÄKA 80 Cleaning Paste is used for the cleaning of electrical insulators on the roofs of locomotives and railcars as well as, in some counties, of signal lights and enamel signs.

Cement And Steel

Products are used for the cleaning and maintenance of equipment and transformers subject to rapid wear and tear due to the deposits of dust and contaminants. These contribute to a cleaner and safer work environment.

Electric Filters (wood heating systems):

SÄKA 80 Cleaning Paste is used for the cleaning of the electric filters used for dust abatement.

Fun Facts

In motorcycle racing, SÄKA 80 Cleaning Paste is often used to clean wheels and exhausts and is referred to in many online fora as the "secret weapon"!

Recently, also cyclists have found out it works like magic!!



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