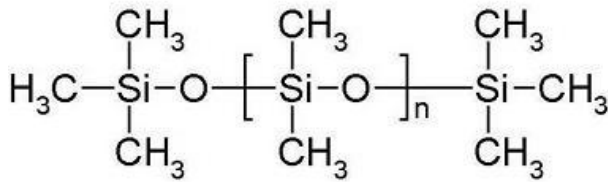


# WACKER® AK 50

SILICONE FLUID

## Product description

Structural formula:



WACKER® AK 50 is a linear, non-reactive polydimethylsiloxane with a viscosity of approx. 50 mm<sup>2</sup>/s. Due to its chemical structure, WACKER® AK 50 has an outstanding property profile, which sets it apart from organic materials such as mineral oils.

## Properties

WACKER® AK 50 is a clear, odorless and colorless liquid.

## Special features

- minimal change in physical properties over a broad temperature range
- excellent water-repellent properties
- good dielectric properties
- low surface tension and thus high surface activity
- chemically highly unreactive
- low solidifying point
- high flash point
- high heat resistance
- good solubility in a wide range of solvents

## Application

- release agent
- lubricant
- hydraulic fluid

- antifoam agent
- water-repellent agent
- liquid dielectric for electrical and electronic equipment
- heat-transfer oil
- polish additive
- additive for textile and fiber auxiliaries

For pharmaceutical applications, we recommend specialty silicone fluids from our SILFAR® line. Silicone fluids from our BELSIL® line are available for the cosmetic sector. For applications in the energy technology, especially as a transformer liquid we offer as a special quality POWERSIL® TR 50. Whenever particularly high heat and shear resistance is required, we recommend silicone fluids from our AK stab, AK visc and AKC product lines. Specialty grades of the product (available as WACKER® PLASTICIZER) will be needed for use as a silicone plasticizer in RTV-1 sealants.

## Processing

Due to WACKER® AK 50 many diverse applications, no general processing information can be provided. Parameters will vary from application to application.

Available in a range of viscosities, WACKER® SILICONE FLUIDS AK are miscible with each other in any ratio. The standard product's viscosity can thus be altered to suit your individual needs.

WACKER® AK 50 is a non-polar liquid and is immiscible with polar solvents such as water or short-chain alcohols. In aliphatic and aromatic hydrocarbons, chlorohydrocarbons, ethers, esters, ketones and higher alcohols, WACKER® AK 50 is soluble in any proportion.

Before the product is used with solvents for the first time, it is advisable to perform a lab-scale test.

When solvents are used, please remember to read the appropriate hazard information.

## Storage

The 'Best use before end' date of each batch is shown on the product label.

Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

### Safety notes

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from WACKER subsidiaries or may be printed via WACKER web site <http://www.wacker.com>.

### Product data

Typical general characteristics	Inspection Method	Value
Appearance		colorless, clear
Viscosity, dynamic at 25 °C	DIN 53019	50 mPa.s
Viscosity, kinematic at 25 °C	DIN 53019	approx. 50 mm <sup>2</sup> /s
Density at 25 °C		0,96 g/cm <sup>3</sup>
Refractive index at 25 °C		approx. 1,403
Surface tension		0,021 N/m
Flash point	ISO 2592	> 250 °C

These figures are only intended as a guide and should not be used in preparing specifications.

The data presented in this medium are in accordance with the present state of our knowledge but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this medium should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The information provided by us does not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the product for a particular purpose.

The management system has been certified according to DIN EN ISO 9001 and DIN EN ISO 14001  
  
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