

WACKER® AP 500

Functional Silicone Fluids

WACKER® AP 500 Silicone fluid is a clear, colorless, and odorless polydimethylsiloxane with a high proportion of phenyl groups.

Properties

- heat transfer fluid
- pressure transfer fluid
- dielectric in capacitors and transformers
- base fluid of heat resistant lubricants

Technical data

General Characteristics

Property	Condition	Value	Method
Refractive index	25.0 °C	approx. 1.51	DIN 51423
Appearance	-	clear, colorless	-
Coefficient of thermal expansion	0 - 180 °C	0.00082 - 0.00085 mLmL ⁻¹ K ⁻¹	-
Density	25 °C	approx. 1.08 g/cm ³	DIN 51757
Dielectric constant	100.0 Hz 25.0 °C	approx. 2.9	-
Dielectric strength	-	approx. 20.0 kV/mm	-
Dissipation factor	100 Hz 25.0 °C	approx. 0,0004 tan δ	-
Flash point	-	approx. 270 °C	ISO 2592
Ignition temperature	-	> 400 °C	DIN 51794
Specific heat	25.0 °C	1.46 J/gK	-
Thermal conductivity	50.0 °C	0.14 W/m.K	-
Viscosity, kinematic	25 °C	approx. 500 mm ² /s	DIN 51562
Volatility	5.0 g 2.0 h 250.0 °C	< 1.0 %	-

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

All the information provided is in accordance with the present state of our knowledge. Nonetheless, we disclaim any warranty or liability whatsoever and reserve the right, at any time, to effect technical alterations. The information provided, as well as the product's fitness for an intended application, should be checked by the buyer in preliminary trials. Contractual terms and conditions always take precedence. This disclaimer of warranty and liability also applies particularly in foreign countries with respect to third parties' rights.

Applications

- Antifriction Agents & Lubricants

Application details

For practical purposes, the useful temperature range of WACKER® AP 500 is between -35 °C and +200 °C.

However, this presupposes that heat-stressing of the fluid occurs under "chemically pure" conditions.

Even trace amounts of acids, alkalis, mineral oils, organometallic compounds, metal salts or metal oxides can seriously reduce the service life.

The flash point of the silicone fluid may be changed by heat-stressing.

It is therefore particularly important in open systems to check the flash point at least once a year and more often if operating conditions demand.

Packaging and storage

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>.

QR Code WACKER® AP 500



For technical, quality or product safety questions, please contact:

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