POWERSIL® FLUID TR 50

Linear Silicone Fluids

A fully synthetic, nonvolatile and noncorrosive silicone fluid. The high fire point and the virtually self extinguishing behaviour represent a much lower fire hazard than conventional transformer fluids. An outstanding thermal stability, even under the presence of air, allows a higher thermal utilization in comparison with other liquid coolants.

Properties

- fully synthetic fluid
- maximum purity
- non corrosive
- lowest environmental impact
- long-term-stable dielectric properties
- good compatibility with other insulating materials used in transformers

POWERSIL® FLUID TR 50 fulfills the requirements of class K3 according to IEC 61100 and is classified as L-NTUK-8360300 according to IEC 61039.

Specific features

- High fire point
- High flash point

Technical data

General Characteristics

Property	Condition	Value	Method
Breakdown voltage[1]	-	> 40 kV	IEC 60156
Color	-	clear	-
Density	20 °C	0.96 g/cm^3	ISO 3675
Dissipation factor	50 Hz | 90 °C	< 1x10^{-3}	IEC 60247
Fire point	-	> 340 °C	ISO 2592
Flash point	-	> 240 °C	ISO 2719
Neutralizing value	-	< 0.01 mg KOH/g	IEC 60836
Permittivity	50 Hz | 90 °C	+/- 0,05 2.55	IEC 60247
Pour point	-	< -50 °C	DIN ISO 3016
Refractive index	25 °C	+/- 0,002 1.404	ISO 5661
Viscosity, kinematic	40 °C	40 mm^2/s	ISO 3104
Volume resistivity	90 °C	> 10^{13} Ohmcm	IEC 60247
Water content[2]	-	< 50 mg/kg	IEC 60814

[1]Please note: the indicated value is true for POWERSIL FLUID TR 50 that contains less than 50 mg/kg water.

[2]Please note: the water content is measured before POWERSIL FLUID TR 50 leaves the company; the fluid might take up water during the transportation if the originally sealed container has been opened; in this case Wacker Chemie AG can not guarantee a water content lower than 50 mg/kg when material arrives at the customer.

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

Applications

- Transformers

Application details

When used as coolant and insulation fluid, POWERSIL® FLUID TR 50 is dried and degassed in the same way as conventional transformer fluids. The compatibility of silicone fluids to other materials normally used in transformers has been demonstrated in a number of published articles.

Packaging and storage

Storage

POWERSIL® FLUID TR 50 should be stored in the tightly sealed original container. The liquid should be able to adapt their temperature to that of the environment before use. At high humidity this is especially recommended.

Beeing a silicone fluid, the product has a virtually unlimited self life.

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 POWERSIL® FLUID TR 50

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

Wacker Chemie AG, Gisela-Stein-Strasse 1, 81671 Munich, Germany
productinformation@wacker.com, www.wacker.com