

## technical data sheet

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### Description

Silicone Fluid (polydimethylsiloxane) is a liquid polymerised siloxane which is synthetic in nature and has high thermal stability.

### Applications

Silicone Fluid is used as hydraulic and transformer fluid, damping fluid, diffusion pump fluid, heat-resistant lubricant, release agent, dielectric, water repellent, foam control agent and additive.

### Product Features

Silicone Fluid is tasteless and odourless and has no known harmful effects. It is available in, or can be blended into, an extensive range of viscosities from 0.65 cSt to 1,000,000 cSt. Blends can be tailored to deliver specific usage characteristics by varying the combination of high and low viscosity Fluids.

Silicone Fluid is generally considered safe for indirect food contact under EC 1935/2004. Some variants (dimethylpolysiloxane) are approved as food additive E900 under EU 10/2011. However, E900 fluids are generally only recommended for use as a processing aid suitable for direct food contact, not as an additive.

### Storage, Shelf Life & Packaging

Silicone Fluid has a shelf life of between 24 and 36 months when stored in original and unopened containers between 5°C and 30°C. This product is typically available in 25, 220 and 1,000 litre containers. Please note that it is sold in kilograms and the actual capacity of a container (in kg) is dependent upon the specific gravity of its contents.

### Typical Properties

| Parameter     | Kinematic Viscosity |         | Specific Heat Capacity | Break-down Voltage | Density at 25°C   | Refractive Index at 25°C | Setting Point (max) | Flashpoint (min.) |
|---------------|---------------------|---------|------------------------|--------------------|-------------------|--------------------------|---------------------|-------------------|
|               | @25°C               | @100°C  |                        |                    |                   |                          |                     |                   |
| Method        |                     |         | n/a                    | DIN 53 481         | DIN 51 757        | DIN 51 423/2             | n/a                 | DIN ISO 2592      |
| Unit          | cSt                 | cSt     | J/(kg•K)               | kV                 | g/cm <sup>3</sup> | n/a                      | °C                  | °C                |
| Viscosity     |                     |         |                        |                    |                   |                          |                     |                   |
| 0.65 cSt      | 0.65 ±10%           | -       | 2900                   | -                  | 0,76 ±02          | 1,375 ±0,001             | -67                 | -4                |
| 5 cSt         | 5 ±10%              | 2       | 1600                   | 30                 | 0,93 ±02          | 1,399 ±0,001             | -60                 | 150               |
| 10 cSt        | 10 ±10%             | 3       | 1600                   | 30                 | 0,94 ±0,02        | 1,398 ±0,001             | -60                 | 150               |
| 20 cSt        | 20 ±10%             | 7       | 1600                   | 30                 | 0,95 ±0,02        | 1,4005 ±0,001            | -60                 | 150               |
| 50 cSt        | 50 ±10%             | 15      | 1500                   | 30                 | 0,95 ±0,02        | 1,402 ±0,002             | -60                 | 280               |
| 100 cSt       | 100 ±5%             | 30      | 1500                   | 30                 | 0,96 ±0,02        | 1,402 ±0,002             | -60                 | 280               |
| 200 cSt       | 200 ±5%             | 63      | 1500                   | 30                 | 0,97 ±0,01        | 1,4035 ±0,002            | -50                 | 300               |
| 300 cSt       | 300 ±5%             | 90      | 1500                   | 30                 | 0,97 ±0,01        | 1,4035 ±0,002            | -50                 | 300               |
| 350 cSt       | 350 ±5%             | 105     | 1500                   | 30                 | 0,97 ±0,01        | 1,4035 ±0,002            | -50                 | 300               |
| 500 cSt       | 500 ±5%             | 155     | 1500                   | 30                 | 0,97 ±0,01        | 1,4035 ±0,002            | -50                 | 300               |
| 1,000 cSt     | 1,000 ±5%           | 300     | 1500                   | 30                 | 0,97 ±0,01        | 1,4035 ±0,002            | -50                 | 300               |
| 1,500 cSt     | 1,500 ±5%           | 440     | 1500                   | 30                 | 0,97 ±0,01        | 1,4035 ±0,002            | -50                 | 300               |
| 2,000 cSt     | 2,000 ±5%           | 610     | 1500                   | 35                 | 0,97 ±0,01        | 1,4035 ±0,002            | -40                 | 320               |
| 5,000 cSt     | 5,000 ±5%           | 1,550   | 1500                   | 35                 | 0,97 ±0,01        | 1,4035 ±0,002            | -40                 | 320               |
| 10,000 cSt    | 10,000 ±5%          | 3,050   | 1500                   | 35                 | 0,97 ±0,01        | 1,4035 ±0,002            | -40                 | 320               |
| 12,500 cSt    | 12,500 ±5%          | 3,600   | 1500                   | 35                 | 0,97 ±0,01        | 1,4035 ±0,002            | -40                 | 320               |
| 30,000 cSt    | 30,000 ±5%          | 8,350   | 1500                   | 35                 | 0,97 ±0,01        | 1,4035 ±0,002            | -40                 | 320               |
| 35,000 cSt    | 35,000 ±5%          | 10,500  | 1500                   | 35                 | 0,97 ±0,01        | 1,4035 ±0,002            | -40                 | 320               |
| 60,000 cSt    | 60,000 ±5%          | 18,200  | 1500                   | 35                 | 0,97 ±0,01        | 1,4035 ±0,002            | -40                 | 320               |
| 100,000 cSt   | 100,000 ±5%         | 30,000  | 1500                   | 35                 | 0,97 ±0,01        | 1,4035 ±0,002            | -40                 | 320               |
| 150,000 cSt   | 150,000 ±5%         | 44,400  | 1500                   | 35                 | 0,97 ±0,01        | 1,4035 ±0,002            | -40                 | 320               |
| 300000 cSt    | 300,000 ±5%         | 100,000 | 1500                   | 35                 | 0,97 ±0,01        | 1,4035 ±0,002            | -40                 | 320               |
| 600,000 cSt   | 600,000 ±5%         | 150,000 | 1500                   | 35                 | 0,97 ±0,01        | 1,4035 ±0,002            | -40                 | 320               |
| 1,000,000 cSt | 1,000,000 ±5%       | 200,000 | 1500                   | 35                 | 0,97 ±0,01        | 1,4035 ±0,002            | -25                 | 320               |

Please note; these are typical properties only and should NOT be construed or used as a specification for this product.

(OPM3/D3)

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This product is manufactured in a facility whose Quality Management System is certified as being in conformity with ISO 9001:2015 by Intertek Certification Ltd.



This product is manufactured in a facility which operates in line with the Chemical Business Association's Responsible Care program.

### Technical Support Contact Details

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