



SF18-350

Polydimethylsiloxane Fluid

Product Description SF18-350 polydimethylsiloxane fluid is a clear, water-white, oily fluid. This polydimethylsiloxane fluid meets the requirements of the Federal Food, Drug and Cosmetic Act for use as a component of antifoam agents contributing no more than 10 ppm of the fluid to food.

INCI Name
Dimethicone

Key Performance Properties

- Low Viscosity-Temperature Change
- Wide Temperature Range
- Thermal Stability
- Oxidation Stability
- Chemical Inertness
- Low Flammability
- Low Surface Tension
- Shear Stability
- Thermal Conductivity
- Non-Corrosive

Applications

LUBRICATION

- rubber & plastic
- base fluid for grease for non-metallic lubrication

CHEMICAL SPECIALTIES

- cosmetics & toiletries (Refer to Momentive Performance Materials bulletin CDS#5054)

MOLD REALEASE

- food packaging

ANTIFOAMS

- food applications

PLASTIC ADDITIVES

- extruded film

Typical Product Data

Property	Value
Nominal Viscosity cstks @25C (77F)	350
Approximate Molecular Weight	13,700
Viscosity Temp Coefficient	0.60
Specific Gravity 25/25C(77/77F)	0.973
Refractive Index@ 25C(77F)	1.4030
Pour Point (F) ⁽¹⁾	-58
Flash-Point (1)(Pensky-Martens Open Cup)	637
Surface Tension dynes/cm @25C(77F)	21.1
Thermal Expansion cc/cc/C, 0-150C(302F)	0.000925
Thermal Conductivity Btu/hr ft F (150) ⁽²⁾	0.092
Maximum Volatility, % Wt Loss, 24 hrs at 150C (302F)	0.5
Specific Heat Btu/lb F	0.36
25C(77F)10 ² -10 ⁶ Cycles Dielectric Strength kV	35.0

Specifications Typical property data values should not be used as specifications. Assistance and specifications are available by contacting Momentive Performance Materials at 800-255-8886.

FDA STATUS

Under FDA regulations, SF18-350 can be used directly in foods up to a maximum of 10 ppm silicone. For additional information, see Momentive Performance Materials bulletin CDS#4256. Consult FDA regulations for conditions and limitations of use.

Instructions for Use**PLASTIC ADDITIVES**

A number of approaches for obtaining good dispersion are possible. Generally, silicone additives are incorporated in the polymer system by mechanical addition. As a result, the additives must be partly compatible with the polymer, at least at room temperature, and must extrude to some extent at the melt temperature in order to be available at the interface, where adhesion has to be prevented or where lubrication is desired. Blend these liquid additives by adding to powder or pellets in a ribbon blender, high-intensity blender, or a drum on a tumbler. A master batch with powder made in a high-intensity mixer may be let down with additional powder in a conventional mixer. The final pellets should have 0.01 to 0.5% by weight of silicone additive. Silicone fluids can also be added directly to injection molding or extrusion equipment using a small metering pump. Fluid addition levels of more than 0.5% may require the concentrate approach described above.

Product	%Concentration	Remarks
SF18-350	0.05-2%	Non-lubricating mold release-opaque parts only

The above viscosity grades have been most widely used. However, it

is suggested that samples of various silicone fluids be obtained for laboratory evaluation.

Of course, specific application evaluation must be obtained through actual plant trials. Results of evaluation, combined with fluid cost figures, will provide the best method of determining the most efficient and economical silicone fluid to meet your specific requirements.

Handling and Safety	Material Safety Data Sheets are available upon request from Momentive Performance Materials. Similar information for solvents and other chemicals used with Momentive Performance Materials products should be obtained from your suppliers. When solvents are used, proper safety precautions must be observed.
Storage and Warranty Period	The warranty period is 12 months from date of shipment if stored in the original unopened container at 27C (80F) or below.
Availability	SF18-350 fluid may be ordered from Momentive Performance Materials, Waterford, New York 12188, the Momentive Performance Materials sales office nearest you or an authorized Momentive Performance Materials silicone product distributor.
Government Requirement	Prior to considering use of a Momentive Performance Materials product in fulfilling any Government requirement, please contact the Government and Trade Compliance office at 413-448-4624.

CDS 5398

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