

Dow Corning® 200 Fluid

FEATURES

- Water-clear silicone fluid available in viscosities up to 1,000,000cSt
- Little change in physical properties over a wide temperature range
- Good heat stability, good oxidation resistance, very low vapor pressures, and high flash point
- Very low pour point
- Low toxicity
- Essentially inert
- Low surface tension - readily wets petroleum surfaces
- Excellent water repellent, release, dielectric and antifoam properties
- Soluble in a wide range of solvents
- Depending on viscosity, insoluble in most crude oil

Additives, mainly foam control agents, for gas and oil processing

APPLICATIONS

- *Dow Corning*® 200 Fluid 1000cSt, 12,500cSt, 60,000cSt, 100,000cSt, 600,000cSt, 1,000,000cSt are widely used during petroleum production and refinery operations for foam control. Extremely small addition levels of fluid effectively control foam in many non-aqueous processing operations. Due to their unique combination of chemical and physical properties, these polydimethylsiloxanes are the most effective antifoams for petroleum applications.
- Main Petroleum applications are in:
 - Gas-oil separation
 - Delayed Coking
 - Vacuum distillation
 - Lubricating oil
 - Asphalt extraction and processing
- Other Petroleum applications:
 - Anti-corrosion through water repellency
 - Coke inhibition in furnace tubes
 - Lubrication
 - Low temperature mechanical fluid

TYPICAL PROPERTIES

Specification writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales representative prior to writing specifications on this product.

	Parameter	Unit	Value
<i>Dow Corning</i>® 200 Fluid 1000cSt			
0176	Appearance		Colorless, odorless fluid
0004/0577	Viscosity 25°C (77°F)	cSt	1,000
0001A	Specific gravity		0.971
0006	Flash point - open cup	°C	>315
		°F	>599
0133	Pour point	°C	-50
		°F	-58
0461	Surface tension	mN/m	21.2
<i>Dow Corning</i>® 200 Fluid 12,500cSt			
0176	Appearance		Colorless, odorless fluid
0004/0577	Viscosity 25°C (77°F)	cSt	12,500
0001A	Specific gravity		0.974
0006	Flash point - open cup	°C	>321
		°F	>609.8
0133	Pour point	°C	-46
		°F	-50.8
0461	Surface tension	mN/m	21.5

TYPICAL PROPERTIES (continued)

	Parameter	Unit	Value
Dow Corning® 200 Fluid 60,000cSt			
0176	Appearance		Colorless, odorless fluid
0004/0577	Viscosity 25°C (77°F)	cSt	60,000
0001A	Specific gravity		0.976
0006	Flash point - open cup	°C	>321
		°F	>609.8
0133	Pour point	°C	-41
		°F	-41.8
0461	Surface tension	mN/m	21.5
Dow Corning® 200 Fluid 100,000cSt			
0176	Appearance		Colorless, odorless fluid
0004/0577	Viscosity 25°C (77°F)	cSt	100,000
0001A	Specific gravity		0.977
0006	Flash point - open cup	°C	>321
		°F	>609.8
0133	Pour point	°C	-33
		°F	-27.4
0461	Surface tension	mN/m	21.5
Dow Corning® 200 Fluid 600,000cSt			
0176	Appearance		Colorless, odorless fluid
0004/0577	Viscosity 25°C (77°F)	cSt	600,000
0001A	Specific gravity		0.978
0006	Flash point - open cup	°C	>321
		°F	>609.8
0133	Pour point	°C	-25
		°F	-13
0461	Surface tension	mN/m	21.6
Dow Corning® 200 Fluid 1,000,000cSt			
0176	Appearance		Colorless, odorless fluid
0004/0577	Viscosity 25°C (77°F)	cSt	1,000,000
0001A	Specific gravity		0.978
0006	Flash point - open cup	°C	>321
		°F	>609.8
0133	Pour point	°C	-25
		°F	-13
0461	Surface tension	mN/m	21.6

DESCRIPTION

Dow Corning® 200 are 100% polydimethylsiloxane fluids, available in different viscosities.

BENEFITS

Effective antifoam in petroleum foaming materials due to its unique combination of low surface tension, inertness, and crude oil insolubility.

HOW TO USE

The main application is in non-aqueous foam control. The starting level of active material recommended in these applications is 10ppm. In many cases, the optimal usage level can end up to be around 1ppm. The fluid is usually pre-diluted in a hydrocarbon solvent, and added continuously by metering pump.

The solvents most often used for this dilution are white spirits, toluene, xylene, diesel, or naphtha, as well as other low molecular weight petroleum fractions.

The viscosity of the *Dow Corning® 200 Fluid* will be selected to suit the application. The primary selection criteria are the insolubility in the foaming system, the working temperature, and the ease of handling.

Higher viscosities are used when gas-oil ratio increases, or when increased thermal resistance is required.

Dow Corning® 200 Fluid 100,000 cSt, 600,000cSt and 1,000,000 cSt for instance, are recommended for use in gas-oil separation of crude oil with a high Gas Oil Ratio, or for use in delayed coking.

Some of the high viscosity materials are also available pre-diluted from *Dow Corning* (e.g. *Dow Corning® 2-1165*).

HANDLING

PRECAUTIONS

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE FROM YOUR LOCAL DOW CORNING SALES REPRESENTATIVE.

USABLE LIFE AND STORAGE

When stored at or below 60°C (140°F) in the original unopened containers, this product has a usable life of 36 months from the date of production.

PACKAGING

Dow Corning[®] 200 Fluid 1000cSt is available in 1kg samples, 25kg pails, 200kg drums and 1000kg IBC's.

Dow Corning[®] 200 Fluid 12500cSt is available in 1kg samples, 20kg pails, 190kg drums and 980kg IBC's.

Dow Corning[®] 200 Fluid 60,000cSt is available in 1kg samples, 20kg pails, 190kg drums and 960kg IBC's.

Dow Corning[®] 200 Fluid 100,000cSt is available in 454g samples, 18.1kg pails, 192.7kg drums and 952.5kg IBC's.

Dow Corning[®] 200 Fluid 600,000cSt is available in 1kg samples and 170kg drums.

Dow Corning[®] 200 Fluid 1,000,000 cSt is available in 1kg samples and 170kg drums.

LIMITATIONS

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

HEALTH AND ENVIRONMENTAL INFORMATION

To support customers in their product safety needs, Dow Corning has an extensive Product Stewardship organization and a team of Health, Environment and Regulatory Affairs specialists available in each area.

For further information, please consult your local Dow Corning representative.

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that Dow Corning's products are safe, effective, and fully satisfactory for the intended end use. Dow Corning's sole warranty is that the product will meet the Dow Corning sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. Dow Corning specifically disclaims any other express or implied warranty of fitness for a particular purpose or merchantability. Unless Dow Corning provides you with a specific, duly signed endorsement of fitness for use, Dow Corning disclaims liability for any incidental or consequential damages. Suggestions of use shall not be taken as inducements to infringe any patent.

