

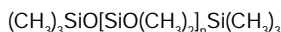
Information About **200[®] Fluid, 1.5 cs** **200[®] Fluid, 2.0 cs** **200[®] Fluid, 5.0 cs**

DESCRIPTION

200[®] fluids from Dow Corning, 1.5-5.0 centistokes (cs), are low viscosity polydimethylsiloxane polymers manufactured to yield essentially linear polymers with average kinematic viscosities ranging from 1.5 to 5.0 cs.

COMPOSITION

Linear polydimethylsiloxane polymers characteristically have the following typical chemical composition:



Commercial bulk-polymerized dimethyl silicone fluids, such as **200** Fluids, 1.5-5.0 cs, typically contain trace amounts of process impurities.

BENEFITS

200 Fluids, 1.5-5.0 cs, have the following product characteristics:

- Clear
- Essentially nontoxic
- Nonbioactive
- Nongreasy
- Nonocclusive
- Nonrancidifying
- Nonstinging on skin
- Tasteless

200 Fluids, 1.5-5.0 cs, when compared with other materials that may be substituted in a given application, may offer one or more of these comparative characteristics:

- High compressibility
- Flat temperature viscosity slope
- High compatibility
- High detackification
- High oxidation resistance
- High spreadability
- High water repellency
- Low environmental hazard
- Low odor level
- Low reactivity
- Low surface energy
- Low temperature serviceability
- Good leveling
- Soft feel and lubricity on skin

USES

200 Fluids, 1.5-5.0 cs, are intended for use by industrial manufacturers.

Typical end uses include:

- Cosmetic ingredient
- Electrical fluid
- Glass vial and lens coating
- Household product ingredient
- Lubricant additive
- Mechanical fluid
- Penetrating oil ingredient
- Personal care product ingredient
- Plastics lubricant
- Rubber lubricant
- Surface active agent
- Thread finish

LIMITATIONS

Dow Corning neither represents nor tests this material for medical device applications or for pharmaceutical end-use. Not for human injection. Not intended for food or medical use.

HOW TO USE

Since the applications for these fluids are numerous and varied, application methods and recommended concentration levels must be considered on an individual basis. Contact Dow Corning Customer Service for specifics.

SHIPPING LIMITATIONS

200 Fluids, 1.5 and 2.0 cs, are combustible liquids.

STORAGE AND SHELF LIFE

When stored at ambient temperatures, **200** Fluids, 1.5-5.0 cs, have a shelf life of 12 months from date of shipment from Dow Corning.

PACKAGING

200 Fluids, 1.5-5.0 cs, are supplied in 30- and 345-lb (13.5- and 155.25-kg) containers, net weight. Smaller containers are available from repackagers.

Caution: Containers will have product residues when emptied. Follow precautions recommended for handling these products when disposing of the container. Containers are not intended for reuse.

TYPICAL PROPERTIES¹

These values are not intended for use in preparing specifications.

As Supplied	200 Fluid, 1.5 cs	200 Fluid, 2.0 cs	200 Fluid, 5.0 cs
Appearance	Crystal clear liquid free from suspended matter and sediment		
Specific Gravity at 25°C (77°F)	0.851	0.872	0.913
Refractive Index at 25°C (77°F)	1.3874	1.3904	1.3960
Color, APHA	5	5	5
Flash Point, closed cup, °C (°F)	56 (135)	87 (189)	134 (272)
Acid Number, BCP	nil	nil	trace
Melt Point, °C (°F) ^{2,3}	-76 (-105)	-84 (-119)	-70 (-94)
Pour Point, °C (°F)	-100 (-148)	-100 (-148)	-100 (-148)
Surface Tension at 25°C (77°F), dynes/cm	18.0	18.7	19.7
Viscosity Temperature Coefficient	0.46	0.48	0.55
Coefficient of Expansion, cc/cc/°C	0.00134	0.00117	0.00105
Thermal Conductivity at 50°C (122°F), g cal/cm • sec • °C	—	0.00026	—
Boiling Point at 760 mm, °C (°F)	192 (378)	—	—
Boiling Point at 0.5 mm, °C (°F)	—	70-100 (158-212)	120-160 (248-320)
Specific Heat at 25°C (77°F), cal/g/°C	0.410	0.410	—
Solubility Parameter ⁴	7.0	7.1	7.1
Solubility in Typical Solvents			
Chlorinated solvents	High	High	High
Aromatic solvents	High	High	High
Aliphatic solvents	High	High	High
Dry alcohols	Good	Good	Good
Water	Poor	Poor	Poor
Fluorinated propellants	High	High	High
Dielectric Strength at 25°C (77°F), volts/mil	350	350	375
Volume Resistivity at 25°C (77°F), ohm-cm	5.0 x 10 ¹⁴	5.0 x 10 ¹⁴	1.0 x 10 ¹⁵

¹Dow Corning does not routinely test all these physical properties. Users should independently test these properties when they are critical in the application.

²The melt point temperature is a typical value and may vary somewhat due to molecular distribution (especially 50 cs or less). If the melting point is critical to your application, then several lots should be thoroughly evaluated.

³Due to different rates of cooling, this test method may yield pour points lower than the temperature at which these fluids would melt.

⁴Fedors Method: R.F. Fedors, *Polymer Engineering and Science*, Feb. 1974.

Specification Writers: Please obtain a copy of the Dow Corning Sales Specification for this product, and use it as a basis for your specifications. It may be obtained from any Dow Corning Sales Office, or from Dow Corning Customer Service in Midland, MI. Call (517) 496-6000.

INCOMING INSPECTION

Dow Corning recommends that incoming inspection tests be performed to confirm product identity and condition on arrival. Suggested tests include viscosity and infrared identification, and any other tests deemed necessary for the application. Such tests may or may not be run routinely by Dow Corning as lot acceptance tests. Obtain the sales specifications for lot acceptance tests and test limits conducted on *200* Fluids, 1.5-5.0 cs.

SALES SPECIFICATIONS

Sales specifications information, including detailed test methods and analysis procedures used by Dow Corning, is available upon request. Since Dow Corning reserves the right to update sales specifications information without prior notice, users should periodically request this information.

SAFE HANDLING INFORMATION

200 Fluids, 1.5-5.0, cs, may cause temporary eye discomfort. *200* Fluids, 1.5 and 2.0 cs, are combustible. Keep away from heat and open flame. Keep container closed.

Note: For answers to any questions regarding the efficacy, safety, health or environmental aspects of using *200* Fluids, 1.5-5.0 cs, in any application, contact your nearest Dow Corning sales office or call Dow Corning Customer Service at (517) 496-6000.

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED. BEFORE HANDLING, READ PRODUCT AND MATERIAL SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE MATERIAL SAFETY DATA SHEET IS AVAILABLE FROM YOUR DOW CORNING REPRESENTATIVE, OR DISTRIBUTOR, OR BY WRITING TO DOW CORNING CUSTOMER SERVICE, OR BY CALLING (517) 496-6000.

LIMITED WARRANTY – PLEASE READ CAREFULLY

Dow Corning believes that the information in this publication is an accurate description of the typical characteristics and/or uses of the

product or products, but it is your responsibility to thoroughly test the product in your specific application to determine its performance, efficacy and safety. Suggestions of uses should not be taken as inducements to infringe any particular patent.

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