



# Typical properties of Dow silicone fluids

Dow fluid	Viscosity <sup>1</sup> at 25°C, centistokes	Flash point <sup>2</sup>	Pour point <sup>3</sup>	Specific gravity at 77°F	Visc-temp coefficient <sup>4</sup>	Coefficient of expansion cc/cc/°C	Refractive index at 77°F	Surface tension at 77°F dyne/cm	Thermal conductivity at 77°F	Boiling point
XIAMETER™ PMX-200 Silicone Fluid	0.65	30°F	-90°F*	0.761	0.31	0.00134	1.375	15.9	0.00024	211°F at 760mm
	1.0	100°F	-123°F*	0.818	0.37	0.00134	1.382	17.4	0.00024	305°F at 760mm
	1.5	145°F	-105°F*	0.853	0.46	0.00134	1.387	18.0	0.00025	377°F at 760mm
	2.0	175°F	-119°F*	0.873	0.48	0.00117	1.390	18.7	0.00026	446°F at 760mm
	3.0	215°F	-85°F	0.900	0.51	0.00106	1.394	19.2	0.00027	158-212°F at 0.5mm
	5.0	275°F	-85°F	0.920	0.55	0.00105	1.397	19.7	0.00028	248-320°F at 0.5mm
	10	325°F	-85°F	0.940	0.57	0.00108	1.399	20.1	0.00032	>392°F at 0.5mm
	20	450°F	-76°F	0.955	0.59	0.00107	1.400	20.6	0.00034	>392°F at 0.5mm
	50	535°F	-67°F	0.960	0.59	0.0014	1.402	20.8	0.00036	>482°F at 0.5mm
	VOLATILITY Weight loss after 48 hours at temp.									
	100	575°F	-67°F	0.968	0.60	0.00096	1.4030	20.9	0.00037	at 392°F, <2%
	200	600°F	-63°F	0.971	0.60	0.00096	1.4031	21.0	0.00037	at 392°F, <2%
	350	600°F	-58°F	0.972	0.60	0.00096	1.4032	21.1	0.00038	at 392°F, <2%
	500	600°F	-58°F	0.972	0.60	0.00096	1.4033	21.1	0.00038	at 392°F, <2%
	1,000	600°F	-58°F	0.972	0.61	0.00096	1.4035	21.2	0.00038	at 392°F, <2%
	12,500	600°F	-51°F	0.973	0.61	0.00096	1.4035	21.5	0.00038	at 392°F, <2%
	30,000	600°F	-47°F	0.973	0.61	0.00096	1.4035	21.5	0.00038	at 392°F, <2%
60,000	600°F	-42°F	0.973	0.61	0.00096	1.4035	21.5	0.00038	at 392°F, <2%	
DOWSIL™ 510 Fluid	50	525°F	-100°F*	0.99	0.62	0.00096	1.425	25.0	0.00035	at 482°F, 14%
	100	525°F	-100°F*	0.99	0.62	0.00096	1.425	24.1	0.00036	at 482°F, 10%
	500	525°F	-100°F*	0.99	0.65	0.00096	1.425	24.4	0.00037	at 482°F, 6%
	1,000	525°F	-100°F*	0.99	0.63	0.00096	1.425	24.7	0.00038	at 482°F, 3%
DOWSIL™ 550 Fluid	100-150	575°F	-60°F*	1.07	0.76	0.00075	1.50	24.5	0.00035	at 482°F, 9%
DOWSIL™ 710 Fluid	475-525	575°F	-8°F*	1.10	0.84	0.00077	1.533	28.5	0.00035	at 482°F, 13%

<sup>1</sup>Standard viscosity grades

<sup>2</sup>Open cup ASTM D92-33

<sup>3</sup>ASTM D97-39 Sect. 5-7

<sup>4</sup>1- Viscosity at 210°F  
Viscosity at 100°F

\*Freeze point

Dow fluid/ cSt	0°C	Specific heat cal/gm/°C 100 °C	200°C	Electric strength <sup>6</sup> volts/mil	10 <sup>2</sup> cycles	Dielectric constant <sup>7</sup> 10 <sup>3</sup> cycles	10 <sup>6</sup> cycles	10 <sup>2</sup> cycles	Dissipation factor <sup>7</sup> 10 <sup>3</sup> cycles	10 <sup>5</sup> cycles	Volume resistivity <sup>8</sup> ohm-cm
XIAMETER™ PMX-200 Silicone Fluid/ 0.65	0.44	0.50	Vapor	—	2.18	2.18	2.18	—	—	—	—
XIAMETER™ PMX-200 Silicone Fluid/ 1.0	0.40	0.46	Vapor	—	2.29	2.29	2.29	—	—	—	—
XIAMETER™ PMX-200 Silicone Fluid/ 1.5	0.38	0.44	Vapor	350	2.36	2.36	2.36	0.00002	0.00001	<0.00001	—
XIAMETER™ PMX-200 Silicone Fluid/ 2.0	0.37	0.43	0.49	—	2.44	2.44	2.44	—	—	—	—
XIAMETER™ PMX-200 Silicone Fluid/ 3.0	—	—	—	—	2.53	2.53	2.53	—	—	—	—
XIAMETER™ PMX-200 Silicone Fluid/ 5.0	—	—	—	—	2.59	2.59	2.59	—	—	—	—
XIAMETER™ PMX-200 Silicone Fluid/ 10	0.38	0.42	0.46	350	2.63	2.63	2.63	0.0004	0.00004	—	1 x 10 <sup>14</sup>
XIAMETER™ PMX-200 Silicone Fluid/ 20	—	—	—	375	2.68	2.68	2.68	0.0002	0.00002	0.00001	1 x 10 <sup>14</sup>
XIAMETER™ PMX-200 Silicone Fluid/ 50	—	—	—	375	2.71	2.71	—	0.00006	<0.00001	<0.00001	1 x 10 <sup>14</sup>
XIAMETER™ PMX-200 Silicone Fluid/ 100	—	—	—	375	2.73	2.73	2.73	0.00005	<0.00001	<0.00001	2 x 10 <sup>14</sup>
XIAMETER™ PMX-200 Silicone Fluid/ 200	—	—	—	375	2.73	2.73	2.73	0.00005	<0.00001	<0.00001	4 x 10 <sup>14</sup>
XIAMETER™ PMX-200 Silicone Fluid/ 350	—	—	—	375	2.73	2.73	2.73	0.00005	<0.00001	<0.00001	6 x 10 <sup>15</sup>
XIAMETER™ PMX-200 Silicone Fluid/ 500	0.37	0.40	0.44	375	2.74	2.74	2.74	0.00005	<0.00001	<0.00001	1 x 10 <sup>15</sup>
XIAMETER™ PMX-200 Silicone Fluid/ 1,000	—	—	—	375	2.74	2.74	2.74	0.00005	<0.00001	<0.00001	2 x 10 <sup>14</sup>
XIAMETER™ PMX-200 Silicone Fluid/ 12,500	—	—	—	375	2.75	2.75	2.75	0.00008	<0.00001	<0.00001	2 x 10 <sup>14</sup>
XIAMETER™ PMX-200 Silicone Fluid/ 30,000	—	—	—	350	2.76	2.76	2.76	0.00008	<0.00001	<0.00001	2 x 10 <sup>14</sup>
XIAMETER™ PMX-200 Silicone Fluid/ 60,000	—	—	—	350	2.76	2.76	2.76	0.00008	<0.00001	<0.00001	2 x 10 <sup>14</sup>
DOWSIL™ 510 Fluid/ 50	—	—	—	350	2.77	2.77	2.77	0.0003	0.00005	0.00005	1 x 10 <sup>14</sup>
DOWSIL™ 510 Fluid/ 100	0.372	0.396	0.436	400	2.78	2.78	2.78	0.0003	0.00005	0.00005	1 x 10 <sup>14</sup>
DOWSIL™ 510 Fluid/ 500	0.372	0.396	0.436	400	2.80	2.80	2.80	0.0003	0.00005	0.00005	1 x 10 <sup>14</sup>
DOWSIL™ 510 Fluid/ 1,000	0.372	0.396	0.436	400	2.81	2.81	2.81	0.0003	0.00005	0.00005	1 x 10 <sup>14</sup>
DOWSIL™ 550 Fluid	0.358	0.386	0.433	400	2.89	2.89	2.89	0.0005	0.0001	0.0001	1 x 10 <sup>14</sup>
DOWSIL™ 710 Fluid	0.363	0.454	0.505	400	2.95	2.95	2.95	0.0002	0.00005	0.0002	1 x 10 <sup>14</sup>

<sup>5</sup>gm-cal/sec/cm<sup>2</sup>/°C differential/1 cm thickness

<sup>6</sup>ASTM D877-49

<sup>7</sup>ASTM D150-54T

<sup>8</sup>ASTM D1169-52T

NON-DOCUMENTED DATA This information is typical of the silicone specified. Thoroughly test prior to using in a specific application.

Section I.A.1.2

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