

Dynalene 600

High Temperature, Silicone Heat Transfer Fluid Information

Dynalene 600® heat transfer fluid is specifically engineered to maintain consistently high thermo-physical stability in the most demanding high temperature open bath applications. Dynalene 600® is an environmentally - friendly, silicone-based product with enhanced resistance to oxidation. When premium performance is a minimum requirement for your open bath applications, select Dynalene 600® as your fluid of choice.



Typical Properties of Dynalene 600®

Composition: Dimethylpolysiloxane
Appearance and Color: Dark Brown Fluid
Odor: Virtually odorless

Property	SI units	US units
Initial Boiling Point:	>315°C	>600°F
Flash Point(open):	315°C	600°F
Pour Point:	<-65°C	<-85°F
Thermal Conductivity ¹ :	0.156 W/m K	0.092 BTU/(hr ft°F)
Specific Heat ² :	1.42 KJ/kg K	0.34 BTU/(lb°F)
Vapor Pressure ³ :	2.5 mm Hg	0.05 psia
Coeff. of Expansion per °F:	0.00053 unit Vol / unit Vol	
Specific Gravity ¹ :	0.97	
	1: @ 25°C (77°F)	
	2: @ 99°C (210°F)	
	3: @ 204°C (400°F)	

Recommended Temperature Ranges

Open System: 70°C (158°F) to 288°C (550°F)

Dynalene 600® Typical Oxidation in an Open Bath

Weight Loss at 249°C (480°F)

After 4 hours, percent.....	2.0%
After 24 hours, percent.....	4.5%
After 48 hours, percent.....	7.0%

Weight Loss at 288°C (550°F)

After 4 hours, percent.....	3.0%
After 24 hours, percent.....	9.4%
After 48 hours, percent.....	11.5%

Gel Time

At 199°C (390°F).....	>19,000 Hrs.
At 288°C (550°F).....	>5,000 Hrs.

For more technical, health and safety information or to request a Material Safety Data Sheet (MSDS), contact our Dynalene sales representative at:
Phone: 610-262-9686 Fax: 610-262-7437 E-mail: info@dynalene.com

Dynalene 600

Special Properties of Dynalene 600

- Gives physical stability and uniform performance in mechano-fluid devices and controls.
- Uniform performance under sheer over a wide temperature range.
- Resistance to viscosity breakdown.
- Increased oxidation stability at high temperatures

Temperature °F	Viscosity cP	Thermal Conductivity Btu/hr•ft•°F	Specific Heat Btu/lb•°F	Density lb/ft ³
158	48.6	0.0853	0.327	56.9
160	47.7	0.0852	0.327	56.8
180	40.4	0.0841	0.332	56.1
200	34.5	0.0829	0.337	55.4
220	29.6	0.0817	0.342	54.7
240	25.7	0.0806	0.347	54.0
260	22.4	0.0794	0.352	53.3
280	19.7	0.0783	0.357	52.7
300	17.5	0.0771	0.362	52.0
320	15.6	0.0759	0.367	51.3
340	13.9	0.0748	0.372	50.6
360	12.5	0.0736	0.377	49.9
380	11.3	0.0725	0.382	49.2
400	10.3	0.0713	0.387	48.5
420	9.4	0.0701	0.392	47.8
440	8.6	0.0690	0.397	47.1
460	7.9	0.0678	0.402	46.4
480	7.3	0.0667	0.407	45.7
500	6.7	0.0655	0.412	45.0
520	6.2	0.0643	0.417	44.3
540	5.8	0.0632	0.422	43.7
550	5.6	0.0626	0.425	43.3

Temperature °C	Viscosity mPa•s	Thermal Conductivity W/m•K	Specific Heat kJ/kg•K	Density kg/m ³
70	48.6	0.1451	1.366	913
80	41.8	0.1433	1.385	903
90	36.1	0.1415	1.404	893
100	31.5	0.1397	1.423	883
110	27.6	0.1380	1.442	873
120	24.3	0.1362	1.461	863
130	21.6	0.1344	1.479	853
140	19.2	0.1326	1.498	843
150	17.3	0.1309	1.517	833
160	15.6	0.1291	1.536	823
170	14.1	0.1273	1.555	813
180	12.8	0.1255	1.574	803
190	11.7	0.1238	1.592	793
200	10.7	0.1220	1.611	783
210	9.8	0.1202	1.630	773
220	9.1	0.1184	1.649	763
230	8.4	0.1167	1.668	753
240	7.8	0.1149	1.687	743
250	7.2	0.1131	1.705	733
260	6.7	0.1114	1.724	723
270	6.3	0.1096	1.743	713
280	5.9	0.1078	1.762	703
288	5.6	0.1064	1.777	695

