

Propylene glycol-based Direct-To-Chip (DTC) coolants

Process Applications

- Data center cooling
- Direct to chip cooling
- Electronics cooling
- Crypto Mining
- Racks and Coolant Distribution Units (CDU)
- High performance computing (HPC)
- Cold plate cooling

■ Dynalene PG-D Series Overview

The Dynalene PG-D coolant series consists of Dynalene PG-D15, PG-D25 and PG-D55, designed to provide direct liquid cooling solutions for data centers, AI and high-performance computing. These DTC coolants are fully formulated, prediluted propylene glycol-water solutions blended with a proprietary inhibitor package. If on-site dilution is needed, PG-D100 concentrate can be supplied.

With the high-performance computing requirements of modern data centers, air cooling cannot provide the required thermal management, which can affect the longevity and performance of the electronic components. Dynalene PG-D coolants provide exceptional liquid cooling along with superior multi-metal corrosion protection, including the copper cold plates used in most coolant distribution units (CDU). Our coolants also provide protection against algae and bacteria growth.

Dynalene PG-D coolants are compatible with commonly used materials of construction in data centers, thereby increasing the electronic component lifetime. These coolants provide freeze protection, increase Power Usage Efficiency (PUE), increase cooling efficiency in direct to chip cooling, and reduce carbon footprint when compared to air cooling.

■ Quantity & Availability

Dynalene PG-D products are offered in 1, 2.5, 5, 30, 55, and 265-gallon containers as well as 5,000-gallon tankers. Pricing depends on quantity, and Dynalene, Inc. will work with you to try to fit your budget.

■ Dynalene's Fluid Care Program

Coupling our Dynalene fluids with a fluid care program can extend the life of your systems significantly. We offer yearly testing of the heat transfer fluid in your system and can track changes in the fluid year to year so adjustments can be made to keep your system working at its best.

Recommended Temperature Range:

Closed System:
Up to 80°C (176°F)

■ Properties of Dynalene PG-D Series

A comprehensive list of all thermo-physical properties of Dynalene PG-D can be found on page 2. For health and safety information or to request a Safety Data Sheet, contact a Dynalene sales representative.

Composition:	Propylene Glycol, Water, Inhibitors, Biocide (optional)		
Appearance:	Clear (dye options available)		
Odor:	None		
Freezing Point:	PG-D15:	-5°C (23°F)	
	PG-D25:	-10°C (14°F)	
	PG-D55:	-41.7°C (-43°F)	
pH		8.0 to 10.5	
Boiling Point:		>100°C (>212°F)	
Flash Point:		None	
Autoignition Temp:		None	
Reserve Alkalinity:		≥ 5 mL	

■ ASTM D8040 Corrosion Weight Loss

	Copper (mg)	Brass (mg)
Raw PG-25	5.0	5.3
PG-D25	1.3	2.1
Raw PG-55	24.7	57.9
PG-D55	1.6	1.1

■ Benefits of Choosing Dynalene PG-D

- Enhances data center performance
- Non-toxic
- Non-flammable
- Available worldwide
- Cost-effective
- Fluid and equipment longevity
- Exceptional corrosion protection

General Properties

Dynalene PG-D15

Temp °C	Viscosity mPa·s	Thermal Cond. W/m·K	Specific Heat kJ/kg·K	Density kg/m ³	Vapor Pressure kPa
0	3.30	0.492	3.989	1022	
10	2.30	0.503	4.008	1017	
20	1.68	0.514	4.026	1015	
30	1.28	0.525	4.045	1010	5.99
40	1.01	0.534	4.064	1006	8.89
50	0.82	0.543	4.082	1001	13.21
60	0.69	0.552	4.101	995	19.64
70	0.58	0.560	4.120	989	29.18
80	0.50	0.567	4.138	983	43.35
90	0.44	0.574	4.157	977	64.41
100	0.39	0.580	4.176	970	95.71

Dynalene PG-D25

Temp °C	Viscosity mPa·s	Thermal Cond. W/m·K	Specific Heat kJ/kg·K	Density kg/m ³	Vapor Pressure kPa
-5	6.89	0.441	3.855	1035	
0	5.44	0.447	3.867	1033	
10	3.56	0.457	3.892	1029	
20	2.48	0.466	3.916	1025	
30	1.81	0.475	3.941	1020	5.80
40	1.38	0.483	3.965	1015	8.64
50	1.09	0.490	3.989	1009	12.86
60	0.88	0.498	4.014	1003	19.14
70	0.73	0.504	4.038	997	28.49
80	0.62	0.510	4.062	990	42.41
90	0.54	0.515	4.087	983	63.13
100	0.47	0.520	4.111	976	93.97

Dynalene PG-D55

Temp °C	Viscosity mPa·s	Thermal Cond. W/m·K	Specific Heat kJ/kg·K	Density kg/m ³	Vapor Pressure kPa
-30	243	0.312	3.232	1071	-
-20	101	0.319	3.273	1067	
-10	46.9	0.325	3.315	1062	
0	24.1	0.331	3.356	1057	
10	13.5	0.337	3.398	1052	
20	8.20	0.342	3.439	1046	
30	5.31	0.346	3.481	1040	5.03
40	3.64	0.350	3.522	1034	7.47
50	2.63	0.353	3.563	1027	11.11
60	1.97	0.355	3.605	1019	16.50
70	1.54	0.357	3.646	1012	24.52
80	1.24	0.358	3.687	1004	36.43
90	1.02	0.359	3.728	995	54.14
100	0.86	0.359	3.770	987	80.44

Product Disclaimer

The information contained in this entire publication is presented in good faith at no charge and is believed to be correct as of the date indicated. No representations or warranties are made as to its completeness or accuracy. The information listed is supplied upon the condition that the persons receiving it will make their own determination as to its suitability for their purposes prior to use. In no event will the seller be responsible for damages of any nature whatsoever resulting from the use of, or reliance upon, this information or the product to which this information refers. Nothing contained on this page is to be construed as a recommendation to use the product, process, equipment or formulation in conflict with any patent. No representation or warranty, expressed or implied, is made that the use of this product will not infringe any patent.

No representations or warranties, either expressed or implies, of merchantability, fitness for a particular purpose or for any other nature are made with respect to the information, or the product to which the information refers.

Contact Information

Corporate Headquarters

Dynalene, Inc.
5250 West Coplay Road
Whitehall, Pennsylvania 18052
Phone: 610-262-9686 / 1-877-244-5525
Fax: 610-262-7437
Email: info@dynalene.com
Website: www.dynalene.com

Midwest Location

248 Beinoris Dr
Wood Dale, IL 60191
Phone: 1-855-216-7639
Email: centralsales@dynalene.com

West Location

1701 S 5350 W
Salt Lake City, UT 84104
Phone: 1-877-244-5525
Email: westsales@dynalene.com