Valvoline

PRODUCT INFORMATION

VALVOLINE™ HPC HEAT TRANSFER FLUID PG25 ADVANCED

scan here to learn more

Valvoline HPC Heat Transfer Fluid PG25 Advanced is formulated with state-of-the-art organic acid technology in a propylene glycol base for protection of all thermal management system components including copper, brass, stainless steel, and aluminum. Valvoline HPC Heat Transfer Fluid PG25 Advanced offers low toxicity and low solids for an optimal thermal management fluid for narrow channel heat exchangers as found in electronic control systems.

Valvoline HTF PG25 Advanced

- Meets ASHRAE Wetted Materials List for Compatibility
- Low toxicity to meet specific application requirement
- Provides robust corrosion protection for cooling system metals
- Low solid chemistry for optimal thermal management in narrow channel heat exchangers
- Robust Heat transfer performance in thermal management system

Valvoline HTF, PG25 Advanced concentrate contains around 94% of propylene glycol and when diluted 25% with water, protects modern thermal management components from boiling. Valvoline HTF, PG25 Advanced is storage stable for up to five years as both a concentrate and diluted with water. It contains high quality defoamer and is designed to not harm gaskets, hoses, plastics or original equipment paint.

Valvoline HPC Heat Transfer Fluid PG25 Advanced Major Characteristics

Characteristics	Specifications	Typicals	ASTM Method
Chloride	25 PPM, max.	<25	D3634
Specific gravity 60/60°F, 25% V/V	1.01 – 1.03	1.023	D1122
Freezing point, 25% V/V	15°F/-9°C	15°F/-9°C	D1177
Boiling point, 25% V/V	217°F/103°C	217°F/103°C	D1120
Effect on engine or vehicle finish	No Effect	No Effect	-
Ash content mass%, 25% V/V	5 max	<1	D1119
pH, 25% V/V	8 – 9	8.5	D1287
Reserve alkalinity, 25% V/V	Report	1	D1121
Water mass %, 25% V/V	73-77	75	D1123
Color	Distinctive	Orange	-
Effect on nonmetals	No Adverse Effect	No Adverse Effect	-
Storage stability	-	5 years	-
Foaming	150 ml Vol., max. 5 sec. Break, max.	45 ml 1 sec.	D1881 D1881

*Reserve alkalinity (RA) is a term used to indicate the amount of alkaline inhibitors present in an antifreeze formulation. It is incorrect to relate a high RA with a high-quality antifreeze. Present state-of-the-art antifreeze formulations contain many new inhibitors which give added protection to certain metals but do not raise the RA number.

Valvoline HPC Heat Transfer Fluid PG25 Advanced Typical Corrosion Test Results			
	Weight Loss Mg/Specimen		
Glassware Corrosion Test	Spec.	Actual	ASTM Method
Copper Solder Brass Steel Cast iron Aluminum	10 30 10 10 10 30	2 0 1 0 1 1	D1384
Simulated Service Test			
Copper Solder Brass Steel Cast iron Aluminum	20 60 20 20 20 60	3 0 1 0 -2 -5	D2570
Hot Surface Corrosion	mg/cm2/wk		
Specimen weight loss	1.0	0.4	D4340
Aluminum Water Pump Cavitation/Erosion Corrosion Test			
Pump Rating*	8 min.	9	D2809

*ASTM cavitation corrosion rating: 10 - perfect 1 – perforated

Visit www.valvoline.com or call 1-800-TEAM-VAL for more information.

Valvoline recommends that HTF never be disposed of by dumping into a septic system, storm sewer or onto the ground. Instead, contact your state or local municipality for instructions on where to and how to properly dispose of this coolant and protect our environment.

If any HTF is spilled onto the ground, contain the spill and call the state authorities and ask for proper instruction on how to clean up the spill.

This information only applies to products manufactured in the following location(s): USA, China, Germany.

Effective Date:
3/28/24

Author:
Dr. George Zhang - VP R&D
Gefei Wu - Senior Scientist

To inspire and enable what moves the world forward

US_V_13567_EN ©2025 Valvoline Global Operations 9/25 ™Trademark, Valvoline Global Operations

Valvoline

Valvoline HPC Heat Transfer Fluid PG25 Advanced Physical Properties (25%)								
Temperature (°C)	Specific Gravity	Density (g/cm^3)	Viscosity (cP, Centipose)	Kinematic Viscosity (mm^2/s)	Vapor Pressure (kPa)	Thermal Conductivity (W/m-k)	Heat Capacity/ Specific Heat (kJ/kg-°C)	Prandlt Number
-35								
-30								
-25								
-20								
-15	1.031	1.0299	9.5443	9.2676			3.9913	
-10	1.0308	1.0298	9.3459	9.0759		0.4652	3.9915	80.1876
-5	1.0295	1.0284	7.0382	6.8435		0.468	3.9909	60.019
0	1.028	1.027	5.4205	5.2779		0.4709	3.9882	45.9083
5	1.0264	1.0254	4.2773	4.1715		0.4739	3.9848	35.9644
10	1.0244	1.0234	3.4574	3.3783		0.477	3.9814	28.8567
15	1.0222	1.0212	2.8578	2.7985		0.4802	3.979	23.6789
20	1.0198	1.0187	2.4092	2.3649	7.2044	0.4835	3.9779	19.8214
25	1.017	1.016	2.0649	2.0324	5.879	0.4868	3.9785	16.8755
30	1.0141	1.0131	1.7937	1.7704	5.179	0.4902	3.9808	14.5669
35	1.0111	1.0101	1.5743	1.5585	5.3874	0.4935	3.985	12.7111
40	1.0079	1.0069	1.3926	1.383	6.5344	0.4969	3.9907	11.1844
45	1.0047	1.0037	1.2392	1.2346	8.5115	0.5002	3.9979	9.9041
50	1.0015	1.0005	1.108	1.1075	11.1637	0.5035	4.0063	8.8154
55	0.9982	0.9972	0.9948	0.9976	14.3626	0.5068	4.0156	7.882
60	0.9949	0.9939	0.897	0.9025	18.0579	0.5101	4.0255	7.0794
65	0.9916	0.9906	0.8127	0.8204	22.3078	0.5133	4.0359	6.3904
70	0.9883	0.9873	0.7404	0.7499	27.2901	0.5164	4.0464	5.801
75	0.9849	0.9839	0.6787	0.6897	33.2907	0.5196	4.057	5.2989
80	0.9816	0.9806	0.626	0.6384	40.6732	0.5228	4.0677	4.8707
85	0.9782	0.9772	0.5805	0.594	49.8264	0.5259	4.0785	4.5014
90	0.9749	0.9739	0.5399	0.5544	61.0919	0.5291	4.0896	4.1728
95	0.9716	0.9707	0.5014	0.5165	74.6706	0.5324	4.1015	3.8626
100	0.9686	0.9676	0.4615	0.4769	90.5088	0.5357	4.1146	3.5443
105	0.9659	0.9649	0.4163	0.4314	108.1631	0.5391	4.1297	3.1888