

## VALVOLINE™ ZEREX™ G48® ANTIFREEZE COOLANT

Valvoline ZEREX G48 antifreeze coolant is an ethylene glycol-based formulation suitable for passenger cars, light trucks and heavy-duty vehicles. The formulation is designed for both gasoline and diesel engines. Its low-silicate, low pH, phosphate free European technology protects all cooling system metals, including aluminum, from corrosion. The ASTM and other test data shown on this sheet reflect the high performance corrosion inhibitor package.

When diluted 50% with water, ZEREX G48 protects modern engine components from winter freezing and summer boil over. The chart at the below provides mixing information. A 50% to 70% concentration range is suggested for optimum corrosion protection. Zerex G 48 is compatible with many brands of coolant commonly available. It contains a high quality defoamer system and will not harm hoses, plastics or original vehicle finishes.

Call 1-800- TEAM-VAL with questions.

ZEREX G48 is an approved formula for the following specifications:

Audi TL-774-C  
BMW GS 94000  
(Certain Ford & Chrysler)  
Detroit Diesel 7SE298  
DEUTZ DQC CA-14 Approved  
Federal Specification A-A-870A  
Jaguar  
Jenbacher TA-Nr. 1000-0201  
Liebherr Minimum LH-00-COL3A  
MAN Diesel & Turbo Liste 3.3.7  
MAN MAN 324 NF  
Maybach MB-Approval 325.0  
Mercedes-Benz 325.0 before 2017  
Mini BMW GS 94000  
MTU MTL 5048

Opel/Vauxhall (until 2000) B040 0240  
Porche (until 1995)  
Rolls-Royce (from 1998)  
BMW GS 94000  
Saab 690 1599  
Seat TL-774-C  
Škoda TL-774-C  
Smart MB-Approval 325.0  
Tesla (from 2013)  
TMC of ATA RP-302B  
Van Hool  
Volvo 2015 (cars) and older  
Volvo Truck  
VW TL-774-C  
Zastava

ZEREX G48 is formulated to meet or exceed the following antifreeze specifications:

ASTM D3306  
ASTM D4985  
GM 1899M  
GM 1825M

SAE J1034  
SAE J814  
SAE J1941  
Tesla (from 2013)

Valvoline recommends that spent coolant 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 coolant 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.

<b>ZEREX G48</b> Antifreeze/Coolant Boil/Freeze Protection		
% Antifreeze	Freezing Point, °F/°C	Boiling Point**, °F/°C
40	-12/-24	260/126
50	-34/-36	265/128
60	-54/-48	271/133
70*	-90/-67	277/135

\* Maximum freeze protection is at 70%.

\*\* Boiling point shown using conventional 15 psig radiator cap.

Typical Physical Properties		
Antifreeze Glycols	mass %	93.0
Corrosion Inhibitors	mass %	4.0
Water	mass %	3.0
Flash Point	°F/°C	250/121
Weight per gallon @ 60°F/16°C	lbs / KG	9.381 / 4.255
Silicates	PPM	250
Phosphates	PPM	30 max

Aluminum Water Pump Tests		
ASTM D2809 Pump Cavitation (Extended Test)		
Test Period	Results	Specification
100 hours	10	8

ASTM cavitation corrosion rating: 10 - perfect 1 – perforated

Water used for dilution should contain less than 100 PPM Cl and SO<sub>4</sub>. It should also be 0-20 ° dH or treated to conform to these limits

Characteristics	Specifications	Typicals	ASTM Method
Chloride	25 PPM, max.	<25	D3634
Silicon	180-230	250	-
Specific gravity, 60/60° F	1.110 – 1.1450	1.1260	D1122
Freezing point, 50% V/V	-34°F/-36°C	-34°F/-36°C	D1177
Boiling point, undiluted	325°F/162°C	330°F/164°C	D1120
Boiling point, 50% V/V	226°F/107°C	226°F/107°C	D1120
Effect on engine or vehicle finish	No Effect	No Effect	-
Ash content, mass %	5 max	<3	D1119
pH, 50% V/V	8 - 9	8.1	D1287
pH, 100%	7.1 - 7.3	7.3	D1121
Reserve alkalinity*	10 min.	14.8	D1123
Water mass %	5 max.	2.5	-
Color	Distinctive	Blue	-
Effect on nonmetals	No Adverse Effect	No Adverse Effect	-
Storage stability	-	3 years	D1881
Foaming	150 ml Vol., max.	90 ml	D1881
	5 sec. Break, max.	2.8 sec.	D2809
Cavitation-erosion rating	8 min.	9	

\* 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.

Typical ASTM Corrosion Test Results			
	Weight Loss Mg/Specimen		
Glassware Corrosion Test	Spec.	Actual	ASTM Method
Copper	10	1	D1384
Solder	30	0	
Brass	10	0	
Steel	10	1	
Cast iron	10	1	
Aluminum	30	0	
Simulated Service Test			
Copper	20	4	D2570
Solder	60	0	
Brass	20	6	
Steel	20	1	
Cast iron	20	0	
Aluminum	60	1	
Hot Surface Corrosion	mg/cm <sup>2</sup> /wk		
Specimen weight loss	1.0	0.25	D4340

This information only applies to products manufactured in the following location(s): USA, Canada, and Mexico

Material/Product

*Part #                      Product*

61583	ZEREX G48 Concentrate 6/1 GAL
ZXG482	ZEREX G48 Concentrate 55 GAL Drum
811877	ZEREX G48 Concentrate 275 GAL Tote
ZXG480	ZEREX G48 Concentrate Bulk
859537	ZEREX G48 Ready-To-Use 6/1 GAL

Effective Date:  
07/27/2017

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07/27/2022

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02/11/2016

Author's Initials:  
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