

# PRODUCT INFORMATION



## Valvoline™ OEM Advanced 40 Concentrate Coolant

*(Previously Zerex G-40 Concentrate)*

Valvoline™ OEM Advanced 40 Concentrate Coolant is premium automotive engine coolant developed by Valvoline. The patent-pending hybrid carboxylate formulation has an extended service life. It incorporates state-of-the-art Organic Acid Technology in an ethylene glycol base for protection of all cooling system metals including aluminum.

Valvoline™ OEM Advanced 40 Concentrate Coolant is an Si-OAT, contains no phosphates, imidazole, borates, nitrates, amine or nitrites. Valvoline™ OEM Advanced 40 Concentrate Coolant is approved by numerous manufacturers and also meets the latest VW group requirements for service and factory fill. It is dyed pink to distinguish its unique chemistry from traditional green and yellow coolants.

Valvoline™ OEM Advanced 40 Concentrate Coolant meets the ASTM D3306, D4985 and D6210 specifications. When diluted 50% with water, it protects modern engine components from winter freezing and summer boiling. ZEREX™ G-40 is storage stable for up to five years as both a concentrate or diluted with water. It contains a quality defoamer and will not harm gaskets, hoses, plastics or original vehicle paint.

Valvoline™ OEM Advanced 40 Concentrate Coolant is an *approved* formula for the following specifications:

Cummins CES 14603 Registered	MTU MTL 5048
Deutz DQC CC-14	MB Approval 325.5 / 325.6
MAN 324 Type Si-OAT	MB Approval 326.5 / 326.6

Valvoline™ OEM Advanced 40 Concentrate Coolant is formulated to meet or exceed the following antifreeze specifications and/or is recommended:

ASTM D3306	Smart (MB 326.0)
ASTM D4985	MB Truck (from October 2011)
ASTM D6210	Navistar MPAPS B1 IIIA
Cummins CES 14439	Porsche (from MY 2010)
DCC	SAE J814
Detroit Diesel DFS93K217ELC	SCANIA
Federal Specification A-A-870A	VW TL 774 G (G12++): VW/ Audi/ Seat/ Skoda/
Irizar (from 2016)	Lamborghini/ Bentley/ Bugatti
Liebherr Minimum LH-01-COL3A	

\*Please consult the owners' manual before use.

### Applications:

Valvoline™ OEM Advanced 40 Concentrate Coolant is designed for use in passenger car, light duty and commercial petrol and diesel engines.

Valvoline™ OEM Advanced 40 Concentrate Coolant meets the VW group G12++ requirements for service and factory fill. Suitable for use where G12 and G12+ is required.

### Mixture Ratio Guide

Refer to vehicle cooling system requirements for correct mixture ratio.

Antifreeze Boil/Freeze Protection		
Antifreeze %	Freezing Point, °C	Boiling Point**, °C
50	-36	128

\*\*Typical 15psi radiator pressure cap

**Note:** Complete drain and flush of cooling system is always recommended. Mixing with light duty or conventional fully formulated coolants may diminish optimum performance and cooling system protection

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## Features and Benefits

- Multi-purpose application, designed for petrol and diesel engines
- Utilises Organic acid technology to minimize inhibitor depletion
- Help prevents rust and corrosion
- No phosphate, imidazole, borates, nitrates, amine or nitrites free formula
- Protects mixed cooling system metals including aluminium.

## Keeping the world moving since 1866™

Serving more than 100 countries around the globe, Valvoline is a leading marketer, distributor and producer of quality branded automotive and industrial products and services. Products include automotive lubricants including MaxLife™, the first motor oil specifically formulated for higher-mileage vehicles; transmission fluids; gear oils; hydraulic lubricants; automotive chemicals; specialty products; greases, and cooling system products.

For more information on Valvoline products, programs and services please visit [www.valvoline.com.au](http://www.valvoline.com.au) or contact the Technical Hotline on 1800 804 658 for product recommendations.

## Typical Properties and Characteristics

Typical property characteristics are based on current production. Whilst future production will conform to Valvoline™ specifications, variations in these characteristics may occur.

Valvoline™ OEM Advanced 40 Concentrate Coolant		
Physical Properties	Unit	Typical
Antifreeze Glycol	Mass %	93.0
Corrosion Inhibitor	Mass %	4
Water	Mass %	3
Flash Point	°C	121
Weight per gallon @ 16 °C	Lbs./KG	9.383/4.256
Silicate	PPM	180-230
Phosphates	PPM	10 max.

Valvoline™ OEM Advanced 40 Concentrate Coolant*			
Characteristic	Specifications	Typical	ASTM Method
Chloride	25 PPM, max.	<10	D3634
Silicon PPM as Si	180-230	200	-
Specific gravity, 15.6 °C	1.120 - 1.1350	1.1280	D1122
Freezing point, 50% V/V	-36 °C	-36 °C	D1177
Boiling point, undiluted	162 °C	164 °C	D1120
Boiling point, 50% V/V	107 °C	107 °C	D1120
Effect on engine or vehicle finish	No Effect	No Effect	-
Ash content, mass %	5 max.	<4	D1119
pH, 50% V/V	8 - 9	8.5	D1287
Reserve alkalinity*	8.0 - 11.0	9.0	D1121
Water mass %	5 max.	3.0	D1123
Color	Distinctive	Pink/Violet	-
Effect on nonmetals	No adverse effect	No adverse effect	-
Storage stability	-	5 years	-
Foaming	150 ml vol., max. 5 sec. break, max.	40 ml 1 sec.	D1881 D1881
Cavitation-erosion rating	8 min.	9	D2809

\*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.

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Valvoline™ OEM Advanced 40 Concentrate Coolant Aluminium Water Pump Tests		
ASTM D2809 Pump Cavitation (Extended Test)		
Test Period	Results	Specification
100 hours	9	8

ASTM cavitation corrosion rating: 10 - perfect 1 - perforated

Typical ASTM Corrosion Test Results			
	Weight Loss Mg/Specimen		
Glassware Corrosion Test	Spec.	Actual	ASTM Method
Copper	10	1	D1384
Solder	30	1	
Brass	10	1	
Steel	10	0	
Cast Iron	10	0	
Aluminium	30	1	
Simulated Service Test			
Copper	20	2	D2570
Solder	60	24	
Brass	20	1	
Steel	20	1	
Cast Iron	20	1	
Aluminium	60	0	
Hot Surface Corrosion	mg/cm <sup>2</sup> /wk		
Specimen weight loss	1.0	0.18	D4340
John Deere Coolant Cavitation Test	<200	Passed	D7583
Ford Pitting Test mV min	-400	-265	FLTM BL5-1

This information only applies to products manufactured in the following location(s): Australia

Part Number	Pack Size
0955.20	20L

## Health and Safety

This product is not likely to present any significant health or safety hazards when used correctly in the right application. Safety Data Sheet (SDS) is available on request via your local sales office or 1800 804 658 or through our website [www.valvoline.com.au](http://www.valvoline.com.au)

## Protect the Environment

Take used oil to an authorized collection point. Do not discharge into drains, soil or water.

## Storage

Storage We recommend to store all packages under cover. In case outside storage is unavoidable, drums should be laid horizontally to avoid the possible ingress of water and damage to drum markings. Products should never be stored above 60 °C, exposed to hot sun or freezing conditions.

## Author:

VP - Effective 29-04-2022  
Replaces - 0955/05