



Valvoline™ HD Extended Life Premix

Valvoline™ HD Extended Life Premix is a pre-diluted antifreeze coolant meeting Cummins 14603, DDC, Terex, Cat EC-1 and other heavy-duty diesel engine requirements. Fully formulated HD Extended Life coolant incorporates organic acid technology and heavy-duty corrosion inhibitors to protect diesel engines from liner pitting and hard water scale deposits for 3 years, 7000 hours or 500,000 kilometers on initial fill#. The patented* chemistry protect all cooling system metals from corrosion including aluminum. Valvoline™ HD Extended Life Premix can be used in gasoline engines, stationary power, marine and light duty application.

Valvoline™ HD Extended Life Premix is compatible with many long life and conventional brands of ethylene glycol-based coolant. Applications requiring a water filter should use blank filters (without SCA/DCA) and follow engine manufacturers filter change guidelines. Valvoline recommends always topping up with Valvoline™ HD Extended Life Premix, keeping the system full, and using 3-way test strips to check concentration and freeze point regularly.

Valvoline™ HD Extended Life Premix is an **approved** formula for the following specifications:

Cummins CES 14603 Registered	ASTM D3306
Cummins CES 14439 Registered	ASTM D6210

Valvoline™ HD Extended Life Premix is formulated to meet or exceed the following specifications:

Caterpillar EC-1	Navistar CEMS B-1 TYPE III
Cummins 3666286	Paccar
Detroit Diesel 7SE298	Peterbilt
Federal Specification A-A-870A	SAE J1034
Freightliner	SAE J814
GM 1825M	Terex
GM 1899M	Thermo King
John Deere	TMC of ATA RP – 329B
Link Belt	TMC of ATF RP – 338
MACK	Volvo

*Please consult owner's manual before use.

Applications:

Valvoline™ HD Extended Life Premix is designed for use in light duty and commercial petrol and diesel engines. Please consult owner's manual before use.

Mixture Ratio Guide

*Please consult owner's manual before use. 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.

*US Patents 6,126,852 and 6,235,217

PRODUCT INFORMATION



Features and Benefits

- Ready to use (RTU) Premixed – No dilution required
- Multi-purpose application, designed for petrol and diesel engines
- Utilises Organic acid technology to minimize inhibitor depletion
- Cummins 14603 Specification
- Full formulated pre-charged to protect against liner pitting and water scale
- Meets Caterpillar EC-1 long life specification
- Extended Drain intervals up to 3 years/500,000 km/ 7,000 hours (which ever comes first).

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 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™ HD Extended Life Premix		
Physical Properties	Unit	Typical
Antifreeze Glycol	Mass %	46.0
Corrosion Inhibitor	Mass %	2.0
Water	Mass %	52.0
Flash Point (concentrate)	°C	121
Weight per gallon @ 16 °C	Lbs./KG	9.340/4.237
Phosphates	PPM	10 max.

Valvoline™ HD Extended Life Premix*			
Characteristic	Specifications	Typical	ASTM Method
Chloride	25 PPM, max.	3	D3634
Specific gravity, 15.6 ° C	1.110 - 1.145	1.1291	D1122
Freezing point, 50% V/V	-36 °C	-36 °C	D1177
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.	2	D1119
pH, 50% V/V	7.5 - 11.0	9	D1287
Reserve alkalinity*	Report	9	D1121
Water mass %	5 max.	4	D1123
Color	Distinctive	Red	-
Effect on nonmetals	No adverse effect	No adverse effect	-
Storage stability	-	>3 years	-
Foaming	150 ml vol., max.	40 ml	D1881
	5 sec. break, max.	2 sec.	D1881
Cavitation-erosion rating	8 min.	8	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.

PRODUCT INFORMATION



Typical ASTM Corrosion Test Results			
	Weight Loss Mg/Specimen		
Glassware Corrosion Test	Spec.	Actual	ASTM Method
Copper	10	3	D1384
Solder	30	2	
Brass	10	0	
Steel	10	0	
Cast Iron	10	0	
Aluminium	30	0	
Simulated Service Test			
Copper	20	5	D2570
Solder	60	1	
Brass	20	2	
Steel	20	0	
Cast Iron	20	0	
Aluminium	60	1	
Hot Surface Corrosion	mg/cm ² /wk		
Specimen weight loss	1.0	0.1	D4340
John Deere Coolant Cavitation Test	SRI Test 66-39-0302-5	Passed	D7583

Valvoline™ HD Extended Life Premix Aluminium Water Pump Tests		
ASTM D2809 Pump Cavitation (Extended Test)		
Test Period	Results	Specification
100 hours	8	8

ASTM cavitation corrosion rating: 10 - perfect 1 - perforated

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

Part Number	Pack Size
0930.20	20L
0930.51	205L
0930IBC	IBC

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Health and Safety

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

Protect the Environment

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

Author:

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