



ENEOS Hyper Cool XLR

Organic Antifreeze Coolant

High Performance Long-Life Protection

ENEOS Hyper Cool XLR is high performance, long-life antifreeze coolant, with exceptional heat transfer capability. XLR (Extended Life Coolant Red) coolant - mixed with the appropriate amount of water - is suitable for use as a cooling and heat transferring fluid in combustion engines. Excessive heat is transferred via the fluid to the radiator where the mixture is cooled by means of airflow. ENEOS XLR coolant is an ethylene glycol based fluid that provides maintenance-free protection against freezing and boiling but also against corrosion. Extended coolant life, often for the whole life of the engine or vehicle, is obtained through the use of virtually non-depleting corrosion inhibitors relying on superior Organic Additive Technology (OAT). Extensively fleet tested for over 100,000,000 km with both heavy duty and automotive vehicles. Based on ethylene glycol, it guarantees protection against boiling and freezing of up to -69°C . XLR coolant is approved for leading engine manufacturers including Ford, Mercedes-Benz, General Motors, MAN and Volkswagen. Based on patented silicate-free aliphatic additive technology, XLR coolant provides long-life corrosion protection for all engine metals, including aluminium and ferrous alloys. During extensive fleet testing, the synergistic combination of mono- and di-carboxylates present in this coolant, has proven to provide protection for at least 650,000 km (ca. 8,000 hours) in truck & bus-application or 250,000 km (ca. 2,000 hours) for passenger cars or 32,000 hours (or 6 years) for stationary engines.

It is recommended to change the coolant every five years or when above mileages or operating times are reached, whichever comes first. XLR coolant provides long-life protection against all forms of corrosion by the use of optimised and patented organic corrosion inhibitors. Excellent and lasting high temperature corrosion protection is provided for the aluminium heat transfer surfaces contained in modern engines. The inhibitor package of ENEOS XLR coolant offers excellent cavitation protection even without using nitrite or nitrite-based supplemental coolant additives.

FEATURES & BENEFITS

- **Extended life**

Provides long-life corrosion protection for all engine metals. First of 5 years or 650,000Km in truck & bus, and 250,000Km in passenger cars

- **Improved heat transfer**

leaves more flexibility to engine design

- **Frost & Boiling protection**

Offers winter protection against engine freeze damage. Control of overheating, coolant loss and breakdown at high engine temperatures.

- **Reduces repairs**

to thermostat, radiator and water pump

- **Reliability**

depletion free and stable inhibitor

- **Improved hard water stability**

absence of silicates and phosphates

- **Save time and money**

maintenance-free coolant

- **Suitable for mixed fleets**

1 coolant for automotive & heavy duty application

- **Environmentally friendly**

by using carboxylic additives

- **Miscibility**

Mixes with existing ethylene glycol coolants.

APPLICATION

- Passenger car gasoline, LPG and diesel engines
- Light-duty commercial vehicle gasoline and diesel engines
- Heavy-duty diesel engines fitted with wet or dry liners, in on and off-highway service
- Motorbike, Power equipment & Outboard engines

- XLR may be used with confidence in engines manufactured from cast iron, aluminium or combinations of the two metals, and in cooling systems made of aluminium or copper alloys. XLR is particularly recommended for hi-tech engines, where high temperature aluminium protection is important.

TYPICAL MIXING RATIO

XLR coolant provides long-life frost and corrosion protection. To ensure good corrosion protection, it is recommended to use at least 33 vol.% of XLR in the coolant solution. This provides frost protection to -20 °C. Typical mixtures in Northern Europe are 50/50, offering frost protection down to -40 °C. Mixtures with more than 70 vol.% of XLR in water are not recommended. The maximum frost protection (about -69 °C) is obtained at 68 vol.% of XLR. XLR is compatible with most other coolants based on ethylene glycol. Exclusive use of XLR is however recommended for optimum corrosion protection and sludge control.

For optimal performance and controlled quality, we recommend the use of deionised or distilled water to prepare the ready-to-use dilutions although lab testing has shown that acceptable corrosion results are still obtained with water of 20° dH, containing up to 500 ppm chlorides or 500 ppm sulphates.

Vol % in water	33	40	50	60	68
Freezing Protection °C	-20	-27	-40	-54	-69

PACK SIZES

1L, 5L, 60L & 200L

TYPICAL PROPERTIES

Parameters	Concentrate	50% Pre-mixed	40% Pre-mixed
Appearance	Red		
Density @ 20°C	1.1		
Freezing Protection		-40 °C	-27 °C
pH	8.6	8.6	8.4
Boiling Point	180°C	108°C	
Reserve Alkalinity mL	6.2	3.0	2.4
PH 5.5			

Note: The typical properties may be changed without notice. (May 2020)

STORAGE

The product should be stored above -20°C and preferably at ambient temperatures. Periods of exposure to temperatures above 35°C should be minimized. Further, it is strongly advised not to expose the coolant in translucent packages to direct sunlight because this can degrade the colour dyes present in the coolant, and result in fading of the colour or discoloration over time. This reaction can be accelerated if coupled with high ambient temperatures. It is therefore advisable to store coolant filled in translucent packages indoors to avoid this issue.

THE RECOMMENDATIONS OR SUGGESTIONS MADE IN THIS SHEET ARE MADE WITHOUT GUARANTEE OR REPRESENTATION AS TO RESULTS. THE CONTENT OF THIS SHEET IS CORRECT TO THE BEST OF OUR KNOWLEDGE. WE ADVISE THE READER TO CAREFULLY EVALUATE THE PRODUCT CHOICE FOR CRITICAL APPLICATIONS TOGETHER WITH THE SUPPLIER. WE DO NOT ACCEPT RESPONSIBILITY FOR DAMAGE AS A CONSEQUENCE OF

PERFORMANCE LEVELS

OEM GROUP	OEM	SPECIFICATION	📖
ADE	ADE		Approved
AGCO	Fendt		Approved
AGCO	Valtra		Approved
Aston Martin	Aston Martin		Meets
BAIC Group	Foton	Q-FPT 2313005-2013	Approved
BYD Company	BYD		Approved
CNH Industrial	Case New Holland	MAT3624	Meets
Caterpillar	Caterpillar Motoren GmbH & Co.KG	GCM34	Approved
Caterpillar	MAK		Approved
Caterpillar	MWM	0199-99-2091/12	Approved
Claas	Claas		Meets
Cummins	Cummins	IS series u N14	Approved
Cummins	Cummins	CES 14603	Meets
Cummins	Cummins	CES 14439	Approved
Daimler AG	Mercedes-Benz	325.3	Approved
Daimler AG	Mercedes-Benz	326.3	Approved
Daimler AG	Detroit	DFS93K217	Approved
Deutz	Deutz	DQC CB-14	Approved
DRB-HICOM	Proton		Meets
Fendt	Fendt		Meets
Fiat	Fiat	Fiat 9,55523	Meets
Fiat	Lancia	Fiat 9,55523	Meets
Ford	Ford	WSS-M97B44-D	Approved
General Motors	Chevrolet		Approved
General Motors	Saab	B 040 1065	Approved
General Motors	Saturn		Approved
Great Wall Motor Co Ltd.	Great Wall		Meets
Hitachi	Hitachi		Approved
Innio	Jenbacher	TA 1000-0200	Approved
Innio	Waukesha		Approved
Isuzu	Isuzu		Approved
Irisbus	Karosa		Approved
John Deere	John Deere	JDM H5	Meets
Kobelco	Kobelco		Approved
Komatsu	Komatsu	07.892 (2009)	Meets
Liebherr	Liebherr	MD1-36-130	Approved
Mahle	Behr		Approved
Mazda	Mazda	MEZ MN 121 D	Approved
Mitsubishi Heavy Industry	Mitsubishi MHI		Meets
Paccar	DAF	74002	Approved
Paccar	Leyland Trucks	DW03245403	Approved
PSA	Opel - GM	GMW 3420	Approved
PSA	Vauxhall	GMW 3420	Approved
Renault-Nissan	Renault RNUR	41-01-001/- -S Type D	Meets
Rolls Royce Power Systems	MTU	MTL 5048	Approved
Rolls Royce Power Systems	Bergen Engines	2.13.01	Approved
Suzuki	Santana Motors		Approved
Tata Motors	Jaguar	CMR 8229	Approved
Tata Motors	Jaguar	STJLR 651.5003	Approved
Tata Motors	Land Rover		Approved

Tata Motors	Land Rover	STJLR 651.5003	Approved
Tedom	Tedom		Approved
Thermo King	Thermo King		Approved
Van Hool	Van Hool		Approved
Vestas Wind Systems A/S	Vestas		Approved
Volvo AB	Mack	014 GS 17009	Approved
Volvo AB	Volvo Penta		Meets
Volvo AB	Renault Trucks	41-01-001/- -S Type D	Approved
Volvo AB	Volvo Construction		Meets
Volvo AB	Volvo Trucks		Meets
VW	Audi	TL-774 D = G 12	Approved
VW	Audi	TL-774 F = G 12+	Approved
VW	MAN	324 Typ SNF	Approved
VW	MAN Energy Solutions	Antifreeze agents	Approved
VW	MAN Energy Solutions	CW MAN 175D	Approved
VW	MAN B&W AG	D36 5600	Approved
VW	MAN B&W A/S		Approved
VW	Seat	TL-774 D = G 12	Approved
VW	Seat	TL-774 F = G 12+	Approved
VW	Semt Pielstick		Meets
VW	Skoda	TL-774 D = G 12	Approved
VW	Skoda	TL-774 F = G 12+	Approved
VW	Skoda	61-0-0257	Approved
VW	Volkswagen	TL-774 D = G 12	Approved
VW	Volkswagen	TL-774 F = G 12+	Approved
Wärtsilä	SACM Diesel	DLP799861	Approved
Wärtsilä	Wärtsilä	32-9011	Approved
Yanmar	Yanmar		Approved

STANDARDS & SPECIFICATIONS

ASTM Standards		ASTM D3306	Meets
ASTM Standards		ASTM D4656	Meets
ASTM Standards		ASTM D4985	Meets
ASTM Standards		ASTM D6210	Meets
British Standards		BS 6580	Meets
French Standards		NFR 15-601	Meets
FVV Standards	Germany	FVV Heft R443	Meets
Japanese Standards		JIS K2234	Meets
Korean Standards		KS M 2142	Meets
MIL Standards	MIL-Belgium	BT-PS-606 A	Meets
MIL Standards	MIL-France	DCSEA 615/C	Meets
MIL Standards	MIL-Italy	E/L-1415b	Meets
MIL Standards	MIL-Sweden	FSD 8704	Meets
NATO Standards		NATO S-759	Meets
Önorm		Önorm V5123	Meets
SAE Standards		SAE J1034	Meets
UNE Standards		UNE 26-361-88/1	Meets