



TOTAL COOLTECH LLO COOLANT

Long Life organic coolant for Passenger Car & Heavy Duty Engines

KEY DATA

Organic, long life anti-boil/anti-freeze based on carboxylate technology.

Contains no silicates, borates, phosphates, nitrites, nitrates or amines.

Concentrate contains 90% monoethylene glycol.
Premix contains 45% monoethylene glycol.
Both contain a double inhibitor package.

Ultimate corrosion protection and extended service life suited to a broad range of passenger car and commercial vehicles

INTERNATIONAL SPECIFICATIONS

ASTM D 3306
ASTM D 4656

Meets the phosphate-free requirements of European manufacturers

Meets the silicate-free requirements of Japanese manufacturers

Customer benefits

- ✓ **Outstanding Rust Protection** - protects all metals found in cooling systems and gives excellent protection against cavitation erosion and wet-sleeve liner pitting
- ✓ Increases operating life of water pumps and exceeds corrosion performance levels required to meet Australian Standard AS2108.1-2004
- ✓ **Extended Service Life** - up to 5 years / 500,000kms* in automotive applications and up to 6 years / 600,000kms / 6,000hrs* in heavy duty diesels. (* at 50/50 dilution ratio)
- ✓ **Wide range of applications** - suitable for use in marine engines, taxi fleets, government departments, bus companies and large fleet truck companies as well as passenger cars and light commercial vehicles

Specifications

Cooltech LLO is recommended where the following passenger car performance levels are required:

AS 2108.1 :2004 Type A	AFNOR NFR 15-601	Alfa Romeo - Parafllu UP
Audi - G12, G13	ASTM D3306, D4656, D4985	BS 6580
Citroen 9979.70/71/72	Daewoo - Ethylene Glycol Coolant	Daihatsu - Ethylene Glycol Coolant
Dodge - Mopar HOAT	FIAT - Parafllu UP	Ford WSS-M97B44-A, WSS-M97B51
GM 1825 M, GM 1899 M	Holden GM 6277M, GM 1899M	Holden HN1897, HN2043, HN2217
Honda	Hyundai - Ethylene Glycol Coolant	Jaguar WSS-M97B44-A
Kia - Ethylene Glycol Coolant	Land Rover - Ethylene Glycol Coolant	Lexus - Super LL Coolant
Mazda - Ethylene Glycol Coolant	Mazda - FL22	Mercedes Benz 325.0, 326.0
Mitsubishi - Long Life Coolant	Nissan - EG Long Life Coolant	Peugeot - Procor 2000 Glysantin G33
Porsche 000 045 203 78	Renault - EG Long Life Coolant D	Subaru - Super Long Life Coolant
Suzuki - Ethylene Glycol Coolant	Toyota - Super LL Coolant	Volvo

Cooltech LLO is recommended where the following Heavy Duty Diesel performance levels are required:

AFNOR NFR 15-601	ASTM D3306, D4656, D4985	BS 6580
Caterpillar ELC, 1 EO 535	Cummins 3666132	DAF 742002/BTPS 606A/DCEA615
Dennis Eagle Fleetguard	Freightliner Fleet Charge Powercool	FUSO SAE J814-C
Hino Genuine LL Coolant	Isuzu (GM6277M & HN2217)	IVECO Paraflu 11, GM6038M, AC9-50
Japanese JIS K 2234	JASO M 324	Jenbacher
Kenworth ALLCool	Komatsu KES 07.892	Liebherr MD 1-36-130
MAN 324 SNF / 248	Mack VCS Coolant	Mercedes Benz 325.0, 325.5
Mitsubishi FUSO Genuine Diesel LL Coolant		Saab Scania 6901
SAE J 1034	Toyota K2601G - 1G	UD (Nissan) Long Life Coolant
Volvo VCS	Waukesha 4-1974D	Western Star ASTM D6210

Characteristics*

Coolant Mix	Concentrate	50% Premix
Appearance	Green Liquid	Green Liquid
pH	9.1	8.1
Glycol by Weight (gm/L)	970	485
Density kg/L	1.11	1.05
Freezing Point	n/a	-36°C
Boiling Point	n/a	108°C
Reserve Alkalinity (ml)	n/a	4.6
Glassware Corrosion Test (ASTM D-1384)	Pass	Pass
Aluminium Corrosion Test (ASTM D-4340)	Pass	Pass
Water Pump Cavitation Test (ASTM D-2809)	Pass	Pass

* The characteristics given above are obtained with a standard tolerance threshold during production and may not be considered specifications.

Recommendations for use

Before using the product, the vehicle's maintenance guide should be checked.

The product should not be stored at temperatures over 60°C. It should be kept away from sunlight, intense cold and extreme temperature fluctuations.

If possible, the packaging should not be exposed to the elements.

Health, safety and the environment

Please refer to the Material Safety Data Sheet for full safety information.

This product should not be used for any purposes other than the ones for which it is intended.

When disposing of the product after use, please protect the environment and comply with local regulations.

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