



COOLANT CONCENTRATE G11



Premium MEG based NAP free hybrid coolant concentrate (HOAT)

Product ID: 80131

Product description

Coolant Concentrate G11 is an ethylene glycol-based engine coolant concentrate formulated for optimal performance in both light and heavy-duty engine applications. The inhibitors used in Coolant Concentrate G11 include organic additives in combination with borate and silicate which are known to provide excellent protection across all applications. Coolant Concentrate G11 is free from nitrites, amines and phosphates (NAP free).

Benefits

- ✓ Thermal characteristics that permit effective engine cooling without boiling.
- ✓ Outstanding anti-corrosion protection for cast iron, aluminium, brass, copper, solder and steel.
- ✓ Use of sophisticated silicate stabilization technology to ensure good compatibility with hard water.
- ✓ Protection against frost, depending upon the concentration chosen.
- ✓ Excellent antifoaming characteristics.
- ✓ Exceeds requirements of many European and International Standards.

Performance

Coolant Concentrate G11 exceeds many European and International quality standards:

- AFNOR NF R15-601 (France)
- ASTM D3306 (USA)
- JIS K 2234 (Japan)
- CUNA NC 956-16 (Italy)
- SAE J 1034 (USA)
- AS 2108 (Australia)
- ONORM V 5123 (Austria)
- BS 6580: 2010 (UK)
- UNE 26-361 (Spain)



The following OEM specifications are met by Coolant Concentrate G11:

OEM	OEM Standard
Alfa Romeo, Fiat, Lancia	Fiat 9.55523
Audi	TL-774 C (G 11)
Behr	
BMW / Mini	GS 94000
Chrysler	MS-7170
Cummins	85T8-2
Deutz	DQC CA-14
Ford	ESD-M97B49-A
Iveco	Standard 18-1830
Jl Case	JIC-501
Lada / Avtovaz	TTM VAZ 1.97.717-97
MAN	324 Typ NF
Mercedes-Benz	MB 325.0
MTU	MTL 5048
Opel - GM	GME L1301
Perkins	
Porsche	TL-774 C (G 11)
Seat	TL-774 C (G 11)
Skoda	TL-774 C (G 11)
Toyota	1WW/2WW engines
Volkswagen	TL-774 C (G 11)
Volvo Cars	128 6083 / 002
Volvo Construction	(produced before 2005)
Volvo Trucks	(produced before 2005)

Usage

Suitable for both petrol and diesel engines. Original Equipment Manufacturers' (OEMs) recommendations should be followed when replacing coolant.

**Typical properties (product ID 80131)**

Parameter	Value
Appearance	Clear liquid, free from suspended matter
Density	1,123 g/cm ³
pH (50% vol in water)	8,0
Freezing point (50% vol in water)	-38°C
Boiling point	170°C
Reserve alkalinity (ml HCl N/10)	14,5
Water content	2,9% wt
Foaming characteristics at 88°C	
Height	30 ml
Breaktime	2,0 seconds
Colour	as dyed

These are typical properties and do not constitute a specification, for specification limits please refer to the product specification.

Freeze Protection

Coolant Concentrate G11 is a concentrated product and should be diluted for use with good quality water. TecLub recommends that for optimum performance distilled or deionized water is used. The freeze protection afforded by the various dilutions is detailed in the table below:

HOAT Coolant (vol %)	H ₂ O (vol %)	Freeze Protection (°C)
33	67	-20
50	50	-40
67	33	-70

In order to provide a satisfactory level of corrosion protection it is recommended to use at least 33% (1:2) volume of Coolant Concentrate G11 in the coolant solution. In line with most car manufacturers TecLub recommends a 50% (1:1) volume solution for optimum performance. For cold climates use 67% (2:1) volume, concentrations above 67% volume are not recommended and give no advantage.

Corrosion Protection

Protection from corrosion is the most important function of a coolant concentrate and is achieved by the inclusion of a well-balanced inhibitor package. In modern engines with the greater use of aluminium alloys and thinner section castings, avoidance of corrosion problems is critical. The tables below demonstrate the corrosion protection provided when tested against industry standards such as ASTM D1384 (multi-metal corrosion in glassware) and ASTM D4340 (corrosion of cast aluminium alloys under heat-rejecting conditions).


ASTM D1384 (Glassware Corrosion, mg per test piece)

Test specimen	MEG (33% vol in H2O)	HOAT Coolant (33% vol in H2O)	ASTM D3306 limit
Copper	6.5	0,9	10
Solder	345	2,0	30
Brass	8	1,0	10
Steel	1474	0,9	10
Cast iron	2472	0,2	10
Aluminum	30	-2,8	30

ASTM D4340 (Corrosion of Cast Aluminium Alloys under Heat-Rejecting Conditions)

Mass change (mg/cm ² /week)	ASTM D3306 limit
0.2	1.0

Compatibility

Although it is always recommended to use deionized or demineralized water to dilute antifreeze, Coolant Concentrate G11 is formulated to be able to cope with different water qualities and is compatible with hard water. Coolant Concentrate G11 is compatible with all types of plastics and rubbers used in engine coolant systems. Coolant Concentrate G11 is fully miscible with other coolants and can be safely mixed with them. However, optimal performance and longevity of service can only be guaranteed by exclusive use of Coolant Concentrate G11.

Storage and Handling

Coolant Concentrate G11 has a shelf life of minimum three years when stored in air tight containers at a maximum temperature of 30°C. Translucent containers should not be stored outside in direct sunlight, especially in warm climates. Coolant Concentrate G11 can be stored in mild steel, lacquer lined or HDPE containers. As with any glycol-based engine coolant the use of galvanized steel is not recommended for pipes or any other part of the storage/mixing installation. Disposal of used or unused coolant must be carried out in accordance with local and national law, consult the material safety data sheet for further information.

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