TECHNICAL DATA SHEET

Opticool Antifreeze Orange

Monoethylene glycol based Heavy Duty Coolant
Product code: D052

Product Description:

Opticool Antifreeze Orange is an engine coolant concentrate (antifreeze) based on monoethylene glycol, containing no nitrites, amines, phosphates, borax or silicates. It is also free from 2-ethylhexanoic acid and its salts. This is a premium engine coolant designed for the requirements of modern Internal Combustion Engines and Battery Electric Vehicles.

Application:

Opticool Antifreeze Orange has been extensively tested. Its sophisticated inhibitor package makes it suitable for all makes and models of heavy-duty applications where an antifreeze coolant of this type is recommended. Opticool Antifreeze Orange also contains a neutralisation package to avoid negative effects of flux that is used during the production of aluminium heat exchangers.

Benefits:

- Increased lifetime, allowing less frequent maintenance, thanks to the corrosion inhibitors which have a very low depletion rate.
- High thermal stability, designed to cope with modern engine conditions.
- Combats the adverse effects of brazing flux used in production of heat exchangers.
- Elimination of abrasives solids, which gives a better protection of the joints of the water pump.
- Improved anticorrosion protection of all metals and alloys used in the cooling system of modern vehicles,
- especially the aluminium.
- Protection against frost, depending upon the concentration chosen.
- Excellent antifoaming characteristics.

For health and safety information, please refer to the safety data sheet

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Recommended Dilutions:

Concentration (by volume)	33%	50%	67%
Freeze Protection (°C)*	- 20	- 40	- 70

*Average of freezing point and pour point.

Opticool Antifreeze Orange is formulated to be able to cope with all water qualities and is compatible with hard water, however use of deionised or demineralised water is recommended.

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

Product Specifications:

AFNOR NF R15-601 (France)
AS 2108 (Australia)
ASTM D3306 (USA)
ASTM D4656 (USA)
ASTM D4985 (USA)
BS 6580: 2010 (UK)
CUNA NC 956-16
NATO S 759
SAE J 1034
UNE 26361-88

Opticool Antifreeze Orange is recommended for service fill in the following applications or where these OEM genuine fluids were originally required:

Caterpillar	Perkins
Citroën, DS, Peugeot	PSA B 71 5110
John Deere	John Deere Power Systems
Tata Motors	Jaguar, Land Rover
Volvo	VCS-2

Typical Test Data:

Density at 20 °C	ASTM D 4052	1.117 g/cm³
pH (50 % vol in Water)	ASTM D 1287	8.1
Freezing Point (50% vol in Water)	ASTM D 1177	-38 °C
Boiling Point		170°C
Reserve Alkalinity (ml HCl N/10)	ASTM D 1121	5.8 ml
Water Content	ASTM D 1123	3.5 % wt
Foaming Characteristics at 88 °C - Height - Breaktime		 50 ml 1.5 seconds

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