

ALU FREEZE

G12+ engine coolant concentrate product

ALU FREEZE is an ethylene glycol based engine coolant concentrate, which uses Organic Acid Inhibitor Technology and is free from nitrites, amines, phosphates, borates and silicates. BTC Classification Type 4E.

Fleet trials have shown that when used at the correct concentration coolants based on Organic Acid Inhibitor Technology continue to provide effective corrosion protection for up to 250,000 km for passenger cars and 500,000km in commercial vehicles.

It is recommended that the coolant is replaced when the above mileages have been reached or after 5 years which ever is the sooner.

Unlike traditional coolants which employ inorganic inhibitors, ALU FREEZE has excellent hard water stability and very low inhibitor depletion rates.

It has the following properties:

	Concentration by volume %				
	25	33	40	50	60
Specific gravity 20/4°C	1.030	1.045	1.060	1.074	1.087
Freeze protection * °C	-12	-22	-27	-40	-56

*Average of Freezing Point and Pour Point

COMPATIBILITY WITH OTHER COOLANTS:

ALU FREEZE is compatible with other ethylene glycol based coolants and can be safely mixed with them. As ALU FREEZE employs an inhibitor technology that is significantly different from that used in traditional coolants we recommend that prior to using ALU FREEZE in systems previously filled with traditional coolant that the cooling system is drained and flushed with clean water before filling with ALU FREEZE diluted in accordance with the vehicle manufacturers instructions to ensure optimum performance and durability. Failure to do so can significantly reduce the working life of the ALU FREEZE. In the absence of a vehicle manufacturers advice we would recommend a 50% dilution of ALU FREEZE in good quality water.

PERFORMANCE LEVEL :

ALU FREEZE exceeds the requirements of most European and International Standards including:

- ASTM D3306, ASTM D 4985
- SAE J 1034
- BS 6580 (1992) AFNOR NF R15-601 *
- FFV Heft R443
- CUNA NC 956-16
- UNE 26361 - 88
- JIS K 2234 *
- NATO S 759

(* with the exception of reserve alkalinity)

It also meets the requirements of the following OEM specifications:

- Chrysler MS 9176
- Cummins 85T8-2 & 90T8-4
- Ford ESE M97B49-A, WSS-M97B44-D & ESD M97 B49-A
- GM 1899 M, US 6277 M & OPEL GM QL130100
- John Deere H 24 B1 & C1
- Leyland Trucks LTS 22 AF 10
- Mack 014GS 17004
- MAN 248, 324 (SNF) & B&W D 36 5600
- Mercedes MB 325.3
- Renault 41-01-001
- VAG TL 774F
- VOLVO

TYPICAL CHARACTERISTICS :

Parameter	Method	ALU FREEZE	ASTM D3306
Appearance	Visual	Clear red – orange liquid free from suspended matter	Not Specified
Specific Gravity 15/15°C	ASTM D 4052	1.119	1.110 – 1.145
Equilibrium Reflux Boiling Point °C	ASTM D 1120	169	163 min
Freezing Point °C (50% Dilution by vol.)	ASTM D 1177	-40	-37 max
Freezing Point °C (33% Dilution by vol.)	ASTM D 1177	-20	
pH (50% vol.)	ASTM D 1287	8.2	7.5 – 11.0
Reserve Alkalinity 0.1N HCl	ASTM D 1121	5.6	Report
Water Content	ASTM D 1123	4	5 max
Foaming Properties	Vol. (ml)	50	150 max
	Break (s)	1	5 max

We reserve the right to alter the general characteristics of our products in order to let our customers benefit of the latest technical evolutions.