Silicated OAT Coolant

Silicated OAT Coolant is an ethylene glycol based engine coolant concentrate, which uses Organic Acid Inhibitor Technology in combination with silicate and is free from nitrites, amines, phosphates, borates. 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 whichever is the sooner. Unlike traditional coolants which employ inorganic inhibitors, **Silicated OAT Coolant** has excellent hard water stability and very low inhibitor depletion rates.

Physical Properties

Parameter		Method	Silicated OAT Coolant	ASTM D3306
Appearance		Visual	Clear Lilac liquid free from suspended matter	Not Specified
Specific Gravity 15/15°C		ASTM D 4052	1.125	1.110 – 1.145
Equilibrium Reflux Boiling Point °C		ASTM D 1120	167	163 min
Freezing Point °C (50% Dilution by vol.)		ASTM D 1177	-38	-37 max
Freezing Point °C (33% Dilution by vol.)		ASTM D 1177	-19	
pH (50% vol.)		ASTM D 1287	8.4	7.5 – 11.0
Reserve Alkalinity 0.1N HCl		ASTM D 1121	9.0	Report
Water Content		ASTM D 1123	4	5 max
Foaming Properties	Vol. (ml)	ASTM D1881	40	150 max
	Break (s)		1	5 max

Corrosion Protection

ASTM D1384 Glassware Corrosion Test Results.

	Weight Loss mg/ Coupon					
	Copper	Solder	Brass	Steel	Cast Iron	Aluminium
ASTM D3306 (max)	10	30	10	10	10	30
Silicated OAT Coolant	1.7	-0.5	1.7	1.0	-0.6	-4.0

ASTM D 4340 Corrosion of Aluminium under heat rejecting conditions

	Weight Loss mg/ cm^2/week
ASTM D 3306 (max)	1.0
Silicated OAT Coolant	0.1

(The above figures are typical values and do not constitute a specification.)

Freeze Protection

	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*

Consumer Safety

Silicated OAT Coolant contains the aversive agent denatonium benzoate to prevent accidental ingestion of coolant prepared from it. The concentration of the aversive is 70ppm which is in compliance with all current legislation internationally that requires an aversive agent be used in ethylene glycol based antifreeze.

Performance Standards

Silicated OAT Coolant exceeds the requirements of most European and International Standards including: ASTM D3306, ASTM D 4985, SAE J 1034,BS 6580 (2010), AFNOR NF R15601*, CUNA NC 956-16,UNE 26361 – 88, JIS K 2234 *,NATO S 759.

(with the exception of reserve alkalinity)*

It also meets the performance requirements of the following OEM specifications:

VAG TL 774 G

It is recommended for use in the following:

Passenger Cars:

VW, Audi, Seat, Skoda, Bentley, Lamborghini, Mercedes Benz.

Heavy duty:

Mercedes Benz 325.6, MAN 324 Typ Si-OAT, Scania TB145, Cummins CES 14603, MTU MTL5048

Compatibility with other coolants

Silicated OAT Coolant is compatible with other ethylene glycol based coolants and can be safely mixed with them. As **Silicated OAT Coolant** employs an inhibitor technology that is significantly different from that used in traditional coolants we recommend that prior to using **Silicated OAT Coolant** in systems previously filled with traditional coolant that the cooling system is drained and flushed with clean water before filling with **Silicated OAT Coolant** 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 **Silicated OAT Coolant**. In the absence of a vehicle manufacturer's advice we would recommend a 50% dilution of **Silicated OAT Coolant** in good quality water.