Coolant Green

Technical Data Sheet

Green coolant is an ethylene glycol based engine coolant concentrate formulated for use in all engines including those constructed from aluminium alloys. It employs established inhibitor technology and is nitrite, amine and phosphate (NAP) free and includes borate and silicate. BTC classification Type 2E.

Green coolant uses sophisticated silicate stabilisation technology to eliminate the potential for formation of silicate gel often observed with inferior products whilst other additives ensure good compatibility with hard water and prevent the formation of scale that can result from use of hard water.

Physical Properties

Parameter		Method	AF2	BS6580
Appearance		Visual	Clear liquid *	Not Specified
Density at 20°C		ASTM D 4052	1.142	1.110 – 1.160
Equilibrium Reflux Boiling Point °C		ASTM D 1120	161	150 min
Freezing Point °C (50% Dilution by vol.)		ASTM D 1177	-37	-33 max
pH (50% vol.)		ASTM D 1287	8.3	Report
Reserve Alkalinity 0.1N HCl		ASTM D 1121	21.0	Report
Water Content		ASTM D 1123	4.5	Report
Foaming Properties	Vol. (ml)	ASTM D1881	20	150 max
	Break (s)		1	5 max

** Product can be supplied colourless or dyed in accordance with customer requirements.*

Corrosion Protection

ASTM D1384 Glassware Corrosion Test Results

	Weight Loss mg/ Coupon					
	Copper	Solder	Brass	Steel	Cast Iron	Aluminium
BS6580 Limits	10	30	10	10	10	15
Green coolant	0.0	4.5	0.8	-1.0	-1.3	2.2

ASTM D 4340 Corrosion of Aluminium under heat rejecting conditions

	Weight Loss mg/ cm^2/week
BS 6580 max	1.0
Green coolant	<0.1

All of 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	1.040	1.057	1.068	1.086	1.100
Freeze Protection * °C	-12	-22	-27	-40	-56

**Average of Freezing Point and Pour Point*

Consumer Safety

Green 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 intenationally that requires an aversive agent be used in ethylene glycol based antifreeze.

Performance Standards

International, National and Military Standards met by Engine Coolant:
BS 6580 (UK) * FVV Heft R 443 (D) * Afnor R 15/601 (F)(1) * SAE J 1034 * JIS K 2234 (J)* KSM 2142 (K) *CUNA *NC 956-16 (I) *UNE 26361-88 (E) *EMPA (CH) *ASTM D 3306 and 4985 *NATO S 759* E/L 1415c (MIL Italy)

OEM Specifications met by Engine Coolant based on green coolant:

Porsche/VW/Audi/Seat/Skoda TL 774 C * Mercedes DBL 7700 (1) * Ford ESD M97 B49-A * Man 324 * GM US 6277 M * Ford WSS-M97B44-C * Chrysler MS 9176 * BMW N 600 69.0 * VOLVO (Reg. No 260) * FORD ESD M97 B49-A * OPEL GM QL 130100
(1) Except pH value

Storage and Handling

Green coolant has a shelf of two years when stored in air tight containers at a maximum temperature of 30°C. It is recommended that the product is used within two years from the date of manufacture. In warm climates containers should not be stored outside in direct sunlight. **Green coolant** can be stored in mild steel, lacquer lined or HDPE containers. Galvanised containers and handling equipment should be avoided. Hazard data for **Green coolant** is provided in the products Material Safely Data Sheet, the usual precautions for handling chemicals should be taken when handling