

Glacelf Auto Supra

Coolant concentrate • O.A.T.



ANTI-FREEZING



ANTI-CORROSION



ANTI-BOILING



DESCRIPTION

Glacelf Auto Supra is the top-of-the-range product of our antifreeze range.

Glacelf Auto Supra is a “very-long-life” antifreeze based on monoethylene glycol and organic corrosion inhibitors.

Glacelf Auto Supra is a concentrated coolant, that can be used in all cooling systems of combustion engines in cars, vans, trucks, buses, constructing machines and agricultural tractors.

Glacelf Auto Supra contains no silicates, phosphates, chromates, nitrites or boron.

SPECIFICATIONS

Glacelf Auto Supra meets the **international specifications** for antifreezes:

- AFNOR NFR 15-601
- ASTM D3306
- ASTM D4985
- ASTM D4656
- ASTM D6210
- BS 6580
- JIS K2234
- SAE J1034
- NATO S-759

Glacelf Auto Supra is an **antifreeze officially approved** by the following manufacturers:

- VW SEAT AUDI SKODA PORSCHE :
VW TL 774 D / F (G12/G12+)
- DAIMLER MB 325.3 / 326.3*
- FORD WSS-M97B44-D
- MAZDA MEZ MN 121D
- JAGUAR STJLR651.5003
- MAN 324 Typ SNF
- DEUTZ DQCCB-14
- DAF 74002
- GMW 3420
- JENBACHER TA1000-0200
- MWM 0199-99-2091/12
- WARTSILA 32-9011
- CUMMINS IS series uN14
- CUMMINS CES 14439
- LIEBHERR MD1-36-130
- MTU MTL 5048
- VALTRA
- SAAB B 040 1065
- LEYLAND TRUCKS DW03245403

Glacelf Auto Supra **meets the requirements of:**

- RENAULT RNUR 41-01-001/- -S Type D
- CASE NEW HOLLAND MAT 3624
- CASE NEW HOLLAND MAT 3724
- FENDT
- SCANIA
- KOMATSU 07.892 (2009)
- CUMMINS CES 14603
- VOLVO VCS
- IVECO 18-1830
- FIAT 9,55523
- CLAAS
- JOHN DEERE JDM H5

* MB 326.3 approval applies on diluted coolant only



TotalEnergies

TotalEnergies Lubrifiants
Immeuble Spazio
562, avenue du Parc de l'île
92029 Nanterre cedex France

Glacelf Auto Supra | Sheet updated: 10/2022

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CHARACTERISTICS

COLOUR	-	PINK TO FLUORESCENT ORANGE
Density at 15°C	ASTM D1122	1.113
pH	ASTM D1287	8.7
Alkalinity Reserve (pH 5.5)	ASTM D1287	6.2 mL HCl 0.1 N
Temperature at which the first ice crystals occur (dilution 50% vol.)	ASTM D1177	-38°C
Boiling Temperature (concentrate)	ASTM D1120	175°C
Boiling Temperature (dilution 50% vol.)	ASTM D1120	110°C

The typical characteristics mentioned represent mean values

APPLICATION

PROTECTION ALL YEAR ROUND

Glacelf Auto Supra is diluted in demineralised water (< 8°F) to form a permanent coolant that can be used throughout the year.

DILUTION IN DEMINERALISED OR SOFTENED WATER (MINIMUM 33%)

To obtain a coolant perfectly mixed, it is recommended to mix mechanically the antifreeze with the water. Protection against freezing and boiling depends upon the proportions of **Glacelf Auto Supra** in the water as given in below chart. It is recommended that at least 33% of the final solution should be GLACELF AUTO SUPRA. Do not use in proportions above 70%

Glacelf Auto Supra is ready for use, as a mix with demineralised water.

MULTI-MATERIAL COMPATIBILITY

Glacelf Auto Supra can be used for cast iron as well as aluminium engines, and in engine radiators in aluminium or copper alloy.

LIFETIME

Glacelf Auto Supra is inert to elastomeric seals and paints.

Recommended oil change interval*:

- 500,000 km / 4 years when used in trucks.
- 250,000 km / 5 years when used in cars.

% Volume of Glacelf Auto Supra	33%	40%	50%
Freezing Protection	-20°C	-26°C	-37°C
Boiling Point	105°C min.	107°C min.	110°C min.

The typical characteristics mentioned represent mean values

*It is recommended to refer to the vehicle's maintenance manual.



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CUSTOMER BENEFITS

VERY LONG-TERM PROTECTION AGAINST METALS CORROSION

Organic technology ensures a long-term action to offer maximum protection against any type of corrosion, erosion and cavitation, even at high temperatures.

MAXIMUM HEAT TRANSFER

The organic additives in GLACELF AUTO SUPRA give to the coolant:

- Chemical neutrality (pH7 - 8.5),
- A reserve of alkalinity to neutralize the acids resulting from the combustion gases,
- Resistance to foaming,
- Compatibility with hard water (maximum 40°F).

Avoids formation of deposits (no risk of limescale) and leaves surfaces clean.

HSE

All antifreezes and coolants based upon monoethylene glycol are regarded as special industrial wastes and must be disposed of in approved centres for environmental reasons.



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PERFORMANCES

ASTM D1384: GLASSWARE CORROSION TEST (336h / 88°C / 33% vol)

	WEIGHT LOSS (mg/coupon)					
	Copper	Solder	Brass	Steel	Cast Iron	Aluminium
ASTM D3306 LIMITS	10	30	10	10	10	30
Glacelf Auto Supra	1.9	0.3	1.6	-0.5	-1.4	4.6

ASTM D4340: ALUMINIUM HEAT REJECTION TEST (25% vol)

	WEIGHT LOSS (mg/cm ² /week)
ASTM D3306 LIMITS	1.0
Glacelf Auto Supra	<0.2

ASTM D2570: SIMULATED SERVICE TEST

	WEIGHT LOSS (mg/cm ² /week)					
	Copper	Solder	Brass	Steel	Cast Iron	Aluminium
ASTM D3306 LIMITS	20	60	20	20	20	60
Glacelf Auto Supra	2.0	1.0	2.0	1.0	-3.0	1.0

ASTM D6210: HEAVY DUTY ENGINE COOLANTS

As stated in latest revision of ASTM D6210: "coolants that have completed the Test Method D7583 (test method to demonstrate coolant cavitation protection performance) with a maximum pit count of 200 are regarded as passing ASTM D6210"

ASTM D7583: JOHN DEERE DIESEL ENGINE COOLANT CAVITATION TEST RESULT:

LINER NUMBER	1	2	3	4	5	6	TOTAL
PIT COUNT Glacelf Auto Supra	31	38	18	16	19	9	131
D7583 REQUIREMENT							<200



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PERFORMANCES

AGING TEST: VERY SEVERE CORROSION TEST

TEST CONDITIONS	TYPICAL CONDITIONS	SEVERE CONDITIONS
TEST DURATION	169 h	504 h
FLUID CONTENT	5.0 L	6.0 L
PRESSURE	1.5 Bar	2.5 Bar
FLOW	3.0 L/min	3.5 L/min
HEAT INPUT	5500 W	5000 W
TEMPERATURE IN HEATING VESSEL	95°C	115°C
TEMPERATURE IN COOLING VESSEL	75°C	95°C
CONCENTRATION OF COOLANT IN WATER	40% vol	20% vol

REFERENCE COOLANT	AL (SAE 329)	ALMN	CAST IRON	STEEL	CU	CUZN	SOLDER CB
AFTER INITIAL CLEANING	82.10	64.02	-2.19	-1.68	3.62	2.90	21.45
AFTER FINAL CLEANING	125.01	94.33	-0.36	0.11	4.99	5.66	25.83

Glacelf Auto Supra	AL (SAE329)	ALMN	CAST IRON	STEEL	CU	CUZN	SOLDER CB
AFTER INITIAL CLEANING	9.77	0.71	-0.07	0.17	1.44	1.62	0.43
AFTER FINAL CLEANING	23.58	4.14	0.0	0.24	2.63	2.53	0.55



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