

Glacelf Auto Supra

Coolant concentrate • O.A.T.

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 mono ethylene 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:

- NFR 15-601-91
- ASTM D3306-20
- ASTM D4656-98
- ASTM D6210-17
- · BS 6580.2010

- FVV Heft R530
- FVV Heft R443
- KS M 2142:2014
- MIL-BT-PS-606 A
- MIL-DCSEA 615/C
- MIL-E/L-1415b
- MIL-FSD 8704 • NATO S-759
- Önorm V5123
- UNE 26-361-88/1
- · GB 29743-2013
- GB 27943.1-2022 • TMC RP 364
- Glacelf Auto Supra is an antifreeze officially approved by the following manufacturers:
- VW SEAT AUDI SKODA PORSCHE:
- TL 774 D / F (G12/G12+)
- DAIMLER DTFR 29C110 (former MB 325.3)
- FORD WSS-M97B44-D
- MAZDA MEZ MN 121D
- JAGUAR LAND ROVER STJLR 651.5003
- MAN 324 Typ SNF
- DEUTZ DQC CB-14

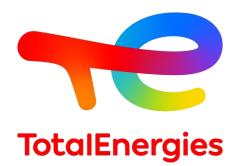
- DAF 74002
- GMW 3420 / GMW 18270
- JENBACHER TA 1000-0200
- MWM 0199-99-2091/12
- WARTSILA 32-9011
- CUMMINS ISBe engines
- CUMMINS CES 14439
- LIEBHERR MD1-36-130
- MTU MTL 5048
- SAAB B 040 1065
- LEYLAND TRUCKS DW03245403
- BERGEN ENGINES 2.13.01
- SKODA 61-0-0257
- JAGUAR CMR 8229
- CW MAN 175D
- MAN B&W D36 5600
- DETROIT DFS93K217
- DETROIT DES93K227
- SACM DIESEL DLP799861
- CATERPILLAR GCM34
- FOTON Q-FPT 2313005-2013
- BYD (50% dilution only)

Glacelf Auto Supra meets the requirements of:

- CASE NEW HOLLAND MAT 3624
- CASE NEW HOLLAND MAT 3724
- MACK 014 GS 17009
- KOMATSU 07.892 (2017)
- CUMMINS CES 14603

RENAULT TRUCKS 41-01-001/--S

- IVECO 18-1830
- FIAT 9,55523
- JOHN DEERE JDM H5



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CHARACTERISTICS

-	PINK TO FLUORESCENT ORANGE
ASTM D1122	1.113
ASTM D1287	8.7
ASTM D1121	6.2 mL HCI 0.1 N
ASTM D1177	-38°C
ASTM D1120	175°C
ASTM D1120	110°C
	ASTM D1287 ASTM D1121 ASTM D1177 ASTM D1120

The typical characteristics mentioned represent mean values

APPLICATION

PROTECTION ALL YEAR ROUND

Glacelf Auto Supra is diluted in demineralized water to form a permanent coolant that can be used throughout the year.

Glacelf Auto Supra can be used for cast iron as well as aluminium engines, and in engine

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%.

MULTI-MATERIAL COMPATIBILITY

radiators in aluminium or copper alloy.

Glacelf Auto Supra is inert to elastomeric seals and paints.

LIFETIME

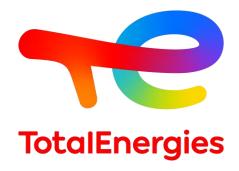
Recommended coolant change interval*:

- 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

MAXIMUM HEAT TRANSFER

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

The organic additives in Glacelf Auto Supra give to the coolant:

- Chemical neutrality (pH 7 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 mono ethylene 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	0.1	1.6	-0.5	-1.4	4.6		

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

	WEIGHT LOSS (mg/cm²/week)
ASTM D3306 LIMITS	1.0
Glacelf Auto Supra	<0.2

ASTM D2570: SIMULATED SERVICE TEST (48H/25%VOL)

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

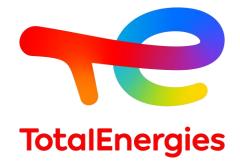
ASTM D6210: HEAVY DUTY ENGINE COOLANTS

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

Glacelf Auto Supra trade name on tables represent either concentrated antifreeze or different dilutions of the concentrated product as per official test parameters.



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PERFORMANCES

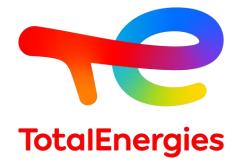
AGING TEST: VERY SEVERE CORROSION TEST

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	AI (SAE 329)	AIMn	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	AI (SAE329)	AIMn	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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