

# **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 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

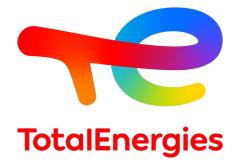
- DAF 74002
- GMW 3420
- JENBACHER TA1000-0200
- MWM 0199-99-2091/12
- WARTSILA 32-9011
- CUMMINS IS series uN14
- CUMMINS CES 14439
- LIEBHERR MD1-36-130
- MTU MTL 5048
- VALTRA
- SAAB B 040 1065
- LEYLAND TRUCKS DW03245403

### Glacelf Auto Supra meets the requirements of:

- RENAULT RNUR 41-01-001/- -S Type D
- CASE NEW HOLLAND MAT 3624CASE 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



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# **CHARACTERISTICS**

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

The typical characteristics mentioned represent mean values

# **APPLICATION**

MULTI-MATERIAL COMPATIBILITY

LIFETIME

PROTECTION ALL YEAR ROUND

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

Glacelf Auto Supra is diluted in demineralised water (< 8°F) to form a permanent coolant that

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

solution should be GLACELF AUTO SUPRA. Do not use in proportions above 70%

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

Glacelf Auto Supra is inert to elastomeric seals and paints.

Recommended oil change interval\*:

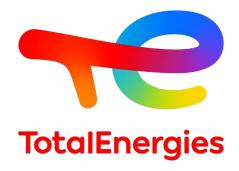
- 500,000 km / 4 years when used in trucks.
- 250,000 km / 5 years when used in cars.

can be used throughout the year.

% 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 (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 Alumin							
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/cm²/week)					
ASTM D3306 LIMITS	1.0					
Glacelf Auto Supra	<0.2					

### **ASTM D2570: SIMULATED SERVICE TEST**

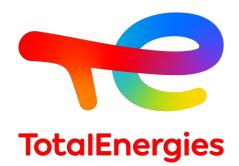
	WEIGHT LOSS (mg/cm²/week)							
	Copper Solder Brass Steel Cast Iron Alum							
ASTM D3306 LIMITS	20	60	20	20	20	60		
Glacelf Auto Supra	2.0	1.0	2.0	1.0	-3.0	1.0		

# **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



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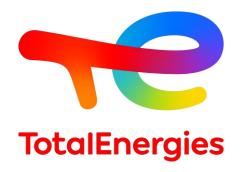
# **PERFORMANCES**

# 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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