

Glacelf SI-OAT

Coolant concentrate to be diluted • SI-OAT

DESCRIPTION

GLACELF SI-OAT is a "very long life" antifreeze made of monoethylene glycol.

GLACELF SI-OAT has fast, effective protective properties. It provides a high level of protection against damage caused by freezing, cavitation, corrosion and overheating.

GLACELF SI-OAT antifreeze must be mixed with a suitable quantity and quality of water to be used as a coolant. This product is especially recommended for certain ICEs both for light vehicles (MB and VW group Euro 6 engines), heavy vehicles (MB, MAN, Scania and Cummins EURO 6 engines), public works machinery (Liebherr Euro 6 engines) and agricultural tractors (MTU Claas engines).

SPECIFICATIONS

Glacelf SI-OAT meets the international standards on coolants:

- AFNOR NFR 15-601
- ASTM D 3306
- ASTM D 4985
- BS 6580 : 2010
- SAE J1034
- CUNA NC 956-16

Glacelf SI-OAT is approved by the following manufacturers:

- VW / AUDI / SEAT / SKODA / LAMBORGHINI/ BENTLEY/ PORSCHE / BUGATTI : VW TL 774-G (G12++)
- DAIMLER / MERCEDES-BENZ : - MB 325.6 - DTFR 29C120 (former MB 325.5)
- MAN 324 Type SI-OAT
- CUMMINS CES 14603
- DEUTZ DQC CC-14
- MTU MTL 5048
- MAN CW 175D

Glacelf SI-OAT meets the requirements of:

- Scania TB1451
- Liebherr LH-01-COL3A
- Claas
- Irizar
- Deutz-Fahr
- Wrightbus



ANTI-FREEZING



ANTI-BOILING



ANTI-CORROSION



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

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This coolant used in accordance with our recommendations and for the application for which it is intended does not represent a special hazard. A safety data file conforming to the requirements of current EC legislation is available from your local trade consultant.

CHARACTERISTICS

Appearance		VISUAL	Clear liquid
Colour		VISUAL	Pink
Density at 20°C	KG/L	ASTM D1122	1.125
Refractive Index at 20°C		ASTM D1218	1.4331
Reserve Alkalinity	mL HCl 0.1N	ASTM D1121	9.7
pH at 20°C		ASTM D1287	8.4

Typical values given for information purposes.



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APPLICATION

MIXING

We strongly advise against mixing Glacelf SI-OAT with any other coolant technologies. If the manufacturer permits SI-OAT technology, any changes in technology must take place further to rinsing the whole cooling system.

DILUTION OF THE PRODUCT

GLACELF SI-OAT, when diluted in demineralised water, is a coolant that can be used year-round. It is essential to mechanically mix the antifreeze product with the dilution water to guarantee a consistent mixture. Protection against freezing depends on the proportion of **GLACELF SI-OAT** in the water.

It is recommended that a 33% volume of GLACELF SI-OAT be used in the final solution, and a maximum volume of 60%.

% Volume of Glacelf SI-OAT	33%	40%	50%
Freezing Protection (ASTM D1177)	-20°C	-26°C	-37°C
Boiling Point (ASTM D1120)	105°C min.	107°C min.	110°C min.

YEAR-ROUND PROTECTION

It guarantees optimum protection against freezing, down to -37° at 50% dilution.

LONGER SERVICE LIFE

Recommended change interval:

- **Professional: from 3 to 5 years** depending on the manufacturer's recommendations (refer to the vehicle's maintenance manual)
- **Light vehicles: up to 250,000 km**, depending on the manufacturer's recommendations (refer to the vehicle's maintenance manual).

RETRO-APPLICABILITY

Glacelf SI-OAT has been specifically designed to meet the most demanding mechanics of certain EURO 6 engines in various business areas, for both professionals and individuals.

Unless there are indications to the contrary from the manufacturer (see vehicle maintenance manual), the product is retro-applicable for generations prior to Euro 6, taking the necessary precautions, i.e. mandatory rinsing before the transition to Si-OAT technology.

Glacelf SI-OAT is MAN 324 (Si-OAT type) approved, and can be used on vehicles requiring MAN 324 type NF and type SNF approvals.

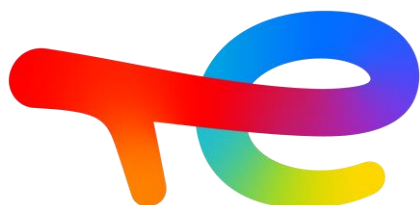
Glacelf SI-OAT is VW TL 774-G approved, and can be used on vehicles requiring VW TL 774-C, 774-D, 774-F, and 774-J approvals.

Glacelf SI-OAT is MB 325.6 and DTFR 29C120 approved and can be used on vehicles requiring MB 325.0 and MB 325.3 approvals.

Glacelf SI-OAT is not recommended for OM 300 and 400 engines on MB Trucks (non-exhaustive list).

HSE

Any antifreeze made with monoethylene glycol is considered to be special industrial waste, and, to respect the environment, must be disposed of in certified centres.



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CUSTOMER BENEFITS

EXCELLENT PROTECTION AGAINST METAL CORROSION, CAVITATION AND THE FORMATION OF DEPOSITS

Glacelf SI-OAT protects against all forms of corrosion, overheating and freezing. Protects aluminium water pumps against corrosion, erosion and cavitation, prevents the formation of deposits and leaves surfaces clean.

PERFORMANCES

GLASSWARE CORROSION TEST

	WEIGHT LOSS (mg/COUPON)					
	Copper	Solder	Brass	Steel	Cast Iron	Aluminium
Glacelf SI-OAT	0.1	0.1	-0.4	-0.1	-0.1	-0.4
VW TL 774-G LIMIT	3	3	3	3	3	2

DIN 51 360-2

	CORROSION INDEX	
	20% vol % dilution	40% vol % dilution
Glacelf SI-OAT	4	2
VW TL 774-G LIMIT	4	2

FOAMING CHARACTERISTICS (33% VOL DILUTION)

	Volume (ml)	Break time (s)
	Glacelf SI-OAT	5
VW TL 774-G LIMIT	20	5
ASTM D1881 (PART OF ASTM D3306)	Max 150 ml	Max 5 sec

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

	WEIGHT LOSS(MG/CM ² /WEEK) ¹
ASTM D3306 LIMITS	1.0
Glacelf SI-OAT	-0.1

¹ Weight loss AFTER chemical cleaning according to ASTM procedure. Weight gain is indicated by a (-) sign.

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



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