



TOTAL COOLELF SI-OAT

Ready-to-use coolant – SI-OAT



DESCRIPTION

TOTAL COOLELF SI-OAT is a “very-long-life” coolant made of monoethylene glycol.

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

TOTAL COOLELF SI-OAT coolant 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

TOTAL COOLELF SI-OAT *meets the international standards* on coolants:

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

TOTAL COOLELF SI-OAT is stringently *approved* by the following manufacturers:

- VW / AUDI / SEAT / SKODA / LAMBORGHINI/ BENTLEY/ PORSCHE / BUGATTI : VW TL 774-G
- DAIMLER / MERCEDES-BENZ : MB-APPROVAL 326.5 AND 326.6
- MAN 324 Type SI-OAT
- CUMMINS CES 14603

TOTAL COOLELF SI-OAT *meets the requirement level* of the following manufacturers:

- SCANIA TB 1451

CHARACTERISTICS

APPEARANCE			CLEAR LIQUID
COLOUR			PINK
DENSITY AT 20°C	KG/L	ASTM D1122	1.075
REFRACTIVE INDEX AT 20°C		ASTM D1218	1.3871
AO	mL HCl 0.1N	ASTM D1121	9.9
PH AT 20°C		ASTM D1287	8.3
FREEZING POINT	°C	ASTM D1177	-38

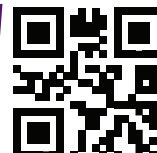
Typical values given for information purposes.

TOTAL LUBRIFIANTS

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

TOTAL COOLELF SI-OAT

Sheet updated: 02/16



This antifreeze presents no particular risks when used in accordance with our recommendations and as intended. Ask your local sales consultant for a safety datasheet showing compliance with current EC legislation.



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APPLICATIONS

MIXING

We strongly advise against mixing TOTAL COOLELF 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.

READY-TO-USE PRODUCT

TOTAL COOLELF SI-OAT, is a ready-to-use product, that is pre-mixed with demineralised water.

YEAR-ROUND PROTECTION

It guarantees optimum protection against freezing, to -37°.

LONGER SERVICE LIFE

Recommended oil 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

TOTAL COOLELF 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.

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

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

TOTAL COOLELF SI-OAT is strictly MB 326.5 and 326.6 approved and can be used on vehicles requiring MB 326.0 and MB 326.3 approvals.

TOTAL COOLELF 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.

CUSTOMER BENEFITS

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

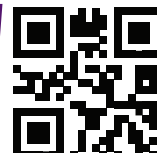
TOTAL COOLELF SI-OAT protects against all forms of corrosion, overheating and freezing. Protects aluminium water pumps against corrosion, erosion and cavitation, prevents the formation of deposits and leaves surfaces clean.

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PERFORMANCES

VW TL 774-G

WEIGHT LOSS (G/M²)

	Copper	Solder/Cast Iron	Brass	Steel	CuZn	Aluminium
COOLELF 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
VW TL 774-G LIMIT	4	2
COOLELF SI-OAT	4	2

FOAMING CHARACTERISTICS (33% VOL DILUTION)

	Volume (ml)	Break time (s)
COOLELF SI-OAT VALUES	5	3
VW TL 774-G LIMIT	20	5
ASTM D1881 (PART OF ASTM D3306)	Max 150 ml	Max 5 sec

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