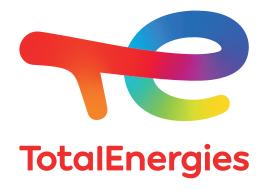


Cooler engine, greater peace of mind

Our antifreeze and coolants range provides the most suitable protection against engine overheating, while inhibiting rust, corrosion and cavitation. It contributes to extending your vehicle's life and enables worry-free drives.





CONTENTS

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15

Coolelf Auto Supra -26°C

READY-TO-USE COOLANT • O.A.T.























Coolelf Auto Supra -26°C is a "very-long-life" coolant based on monoethylene glycol and organic inhibitors of corrosion.

Coolelf Auto Supra -26°C is the top-of-the-range product of our cooling liquid range.



TOTAL

COOLELF

AUTO SUPRA

COOLANT

READY-TO-USE 11

SPECIFICATIONS

Coolelf Auto Supra -26°C meets the international specifications for antifreezes:

AFNOR NFR 15-601

 ASTM D6210 • BS 6580

 SAE J1034 • NATO S-759

ASTM D3306

ASTM D4985

JIS K2234

Coolelf Auto Supra -26°C is obtained by dilution in deionized water of an antifreeze officially approved by the following manufacturers:

 VW SEAT AUDI SKODA PORSCHE:

VW TL 774 D /(G12G12+) • DAIMLER MB 325.3/326.3

• FORD WSS-M97B44-D

• MAZDA MEZ MN 121D

• JAGUAR STJLR 651.5003

MAN 324 TypSNF

• DEUTZ DQCCB-14

• DAF 74002

• GMW3420

JENBACHER TA

1000-0200

MWM

0199-99-2091/12 • WARTSILA 32-9011

 CUMMINS IS series u N14

• CUMMINS CES 14439

• LIEBHERR MD1-36-130

• MTU MTL 5048

VALTRA

SAAB B 040 1065

LEYLAND TRUCKS DW03245403

YANMAR

Coolelf Auto Supra -26°C meets the requirements of:

• RENAULT RNUR

41-01-001/S Type D

• CASE NEW HOLLAND MAT (2009) 3624

FENDT

KOMATSU 07.892

CUMMINS CES14603

• FIAT 9,55523

ASTON MARTIN

· CLAAS

JOHN DEERE JDM H5

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 Coolelf Auto Supra -26°C give to the coolant:

- · Chemical neutrality (pH7-8.5),
- A reserve of alkalinity to neutralise 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.

Coolant Product Range Coolelf Auto Supra

Coolelf Auto Supra -37°C

READY-TO-USE COOLANT • O.A.T.



























Coolelf Auto Supra -37°C is a "very-long-life" coolant based on monoethylene glycol and organic inhibitors of corrosion.

Coolelf Auto Supra -37°C is the premium product of our cooling liquid range.



SPECIFICATIONS

Coolelf Auto Supra -37°C meets the international specifications for antifreezes:

- AFNOR NFR 15-601
- ASTM D6210
- SAE J1034 • NATO S-759

- ASTM D3306
- BS 6580
- ASTM D4985
- ASTM 4656
- JIS K2234

Coolelf Auto Supra -37°C is obtained by dilution in deionized water of an antifreeze officially approved by the following manufacturers:

- VW SEAT AUDI SKODA
- PORSCHE: VW TL 774 D / F DEUTZ DQCCB-14 (G12/G12+)
 - DAF 74002
- DAIMLER MB 325.3/326.3 GMW3420
- FORD WSS-M97B44-D
- MAZDA MEZ MN 121D
- JAGUAR STJLR 651.5003

MAN 324 TypSNF

- JENBACHER TA 1000-0200
- MWM
- 0199-99-2091/12 WARTSILA 32-9011
- LIEBHERR MD1-36-130 • MTU MTL 5048

CUMMINS IS series u N14

CUMMINS CES 14439

- VALTRA
- SAAB B 040 1065
- LEYLAND TRUCKS DW03245403
- YANMAR
- **Coolelf Auto Supra -37°C meets the requirements of:**
- RENAULT RNUR 41-01-001/S Type D
- FENDT
- KOMATSU 07.892
- CASE NEW HOLLAND MAT (2009)
- ASTON MARTIN • FIAT 9,55523
- · CLAAS
- CUMMINS CES14603
- JOHN DEERE JDM H5

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 Coolelf Auto Supra -37°C give to the coolant:

- · Chemical neutrality (pH7-8.5),
- A reserve of alkalinity to neutralise 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.

Coolant Product Range Coolelf Auto Supra

Coolelf Eco BS-22°C

READY-TO-USE COOLANT • O.A.T.































Coolelf Eco BS -22°C is an economical OAT "ready-to-use", providing frost and corrosion protection.

Coolelf Eco BS -22°C is a cooling liquid adapted to cooling systems of combustion engines of in cars and vans, trucks, construction machinery and agricultural tractors, except the EURO 6 engines.

SPECIFICATIONS

Coolelf Eco BS -22°C meets the international specifications for antifreezes:

• BS 6580

Coolelf Eco Bs -22°C conforms to British Standard BS 6580:1992 and BS 6580:2010 as well as those of major manufacturers.

CUSTOMER BENEFITS

PROTECTION AGAINST METALS CORROSION

Coolelf Eco Bs -22°C offers the following benefits to the user:

- Corrosion protection, also for Boiling protection, nonferrous metals
 - · Miscibility,
- Hard water stability

- Frost protection,
- Seal compatibility
- Low cost

EXCELLENT PERFORMANCE

NO DEPOSITS

The organic additives prevent deposit formation, keep the surface clean and optimise the heat transfer.



TOTAL

COOLELF

ECO BS

Coolant Product Range Coolelf Eco BS

Coolelf Si-OAT -37°C

READY-TO-USE COOLANT • O.A.T.









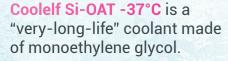












Coolelf Si-OAT -37°C has fast, effective protective properties. It provides a high level of protection against damage caused by freezing, cavitation, corrosion and overheating.



SPECIFICATIONS

Coolelf Si-OAT -37°C meets the international specifications on coolants:

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

Coolelf Si-OAT -37°C is stringently approved by the following manufacturers:

· VW / AUDI / SEAT / SKODA / LAMBORHINI / BENTLEY / PORSCHE / BUGATTI: VW TL774-G

• DAIMLER / MERCEDES BENZ: MB-APPROVAL 326.5 AND 326.6

• MAN 324 TYPE SI-OAT

• CUMMINS CES 14603

CUSTOMER BENEFITS

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

Coolelf Si-OAT -37°C 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.

Coolant Product Range Coolelf Si-OAT

Coolelf Plus -37°C

READY-TO-USE COOLANT • HYBRID























Coolelf Plus -37°C is a "long-life" coolant based on monoethylene glycol and inorganic inhibitors (silicates), a long proven coolant and heat transfer technology. It contains also an organic inhibitor, it is a semi-organic technology.

Coolelf Plus -37°C can be used in all cooling systems of combustion engines in cars, vans, trucks, buses, constructing machines and agricultural tractors.

Coolelf Plus -37°C is the semi-organic product in our range of coolants.



SPECIFICATIONS

Coolelf Plus -37°C meets the international specifications for antifreezes:

- AFNOR NFR 15-601
- ASTM D4985
- ASTM D3306
- BS 6580
- ASTM D4656

The antifreeze used in Coolelf Plus -37°C is officially approved by the following manufacturers:

- VW-TL-774 C (G11)
- BMW GS 94000
- MS-7170

- AUDI-TL-774 C (G11)
- PORSCHE-TL-774
- GM-OPEL GME L1301

- SEAT-TL-774 C (G11)
- C (G11)

- DEUTZ DQC CA-14

- SKODA-TL-774 C (G11)
- FIAT CHRYSLER

Coolelf Plus -37°C meets the requirements of:

- MB 326.0
- FIAT-LANCIA 9.55523

VAZ 1.97.717-97

- LADA TTM
- CUMMINS 85T8-2 IVECO STANDARD

18-1830

PERKINS

- MAN 324 TYPE NF
- VOLVO 128 6083/002

• MTU MTL 5048

CUSTOMER BENEFITS

LONG-TERM PROTECTION AGAINST CORROSION OF METALS AND ALL TYPE OF MATERIALS

Coolelf Plus -37°C offers an adequate solution against corrosion problems of all the materials in the cooling system.

The additives in Coolelf Plus -37°C give the coolant:

- A reserve of alkalinity (to neautralise the acids resulting from the combustion gases),
- · Resistance to foaming,
- Compatibility with hard water (maximum 40°F)

Coolelf Plus -37°C is inert to elastomeric seals and paints.

EXCELLENT QUALITY RATIO

Coolant Product Range Coolelf Plus

Coolelf MDX -26°C

READY-TO-USE COOLANT • HYBRID

























Coolelf MDX -26°C is a "long-life" coolant fluid based upon monoethylene glycol containing no amines, nitrites or phosphates.

Coolelf MDX -26°C coolant is recommended for all the cooling circuits in internal combustion engines, particularly MTU, MB and MAN systems.

Coolelf MDX -26°C figures as a "speciality" in our range of liquid coolants.



Coolelf MDX -26°C meets the international specifications for antifreezes:

- AFNOR NFR 15-601
- BS 6580

The antifreeze used in Coolelf MDX -26°C is officially approved by the following manufacturers:

- VW-TL-774 C (G11)
- AUDI-TL-774 C (G11)
- SEAT-TL-774 C (G11)
- SKODA-TL-774 C (G11)
- PORSCHE-TL-774 C (G11)
- BMW LC-87
- VOLVO CARS 128 6083/002

- MB 326.0
- MTU MTL 5048
- MAN 324 TYPE NF CATERPILLAR MWM
- 0199-99-2091
- OPEL-GM GMW 3420
- (+B040 1065)
- STEYR-DAIMLER PUCH N 05045
- VAN HOOL
- VOLVO CONSTRUCTION 128 6083/002
- VOLVO TRUCKS • VAUXHALL GM 6277M 128 6083/002
 - TESLA (>2013)
 - DEUTZ DQC CA-14

CUSTOMER BENEFITS

PROTECTION AGAINST CORROSION OF METALS, ESPECIALLY ALUMINIUM

Coolelf MDX -26°C provides an effective solution to the problems of corrosion affecting all the materials used in cooling circuits.

Coolelf MDX -26°C performs well in the corrosion tests required by the specifications: hot plate corrosion and glassware corrosion.

Coolelf MDX -26°C gives excellent protection against cavitation that can perforate liners and cause water pump problems.

HOMOLOGATION PROFILE COMPATIBLE WITH MTU MATERIALS

The additives in Coolelf MDX -26°C give the coolant fluid:

- A reserve of alkalinity (to neautralise the acids resulting from the combustion gases),
- · Resistance to foaming,
- · Compatibility with hard water (maximum 40°F)

Coolelf MDX -26°C is inert to elastomeric seals and paints.

Coolant Product Range Coolelf MDX

Coolelf MDX -37°C

READY-TO-USE COOLANT • HYBRID





























Coolelf MDX -37°C is a "long-life" coolant fluid based upon monoethylene glycol containing no amines, nitrites or phosphates.

Coolelf MDX -37°C coolant is recommended for all the cooling circuits in internal combustion engines, particularly MTU, MB and MAN systems.

Coolelf MDX -37°C figures as a "speciality" in our range of liquid coolants.



SPECIFICATIONS

Coolelf MDX -37°C meets the international specifications for antifreezes as well those of major manufacturers:

- AFNOR NFR 15-601
- BS 6580

The antifreeze used in Coolelf MDX -37°C is officially approved by the following manufacturers:

- VW-TL-774 C (G11)
 - MTU MTL 5048 MAN 324 TYPE NF
- STEYR-DAIMLER PUCH N 05045

- AUDI-TL-774 C (G11) • SEAT-TL-774 C (G11)
- CATERPILLAR MWM
- VAN HOOL

- SKODA-TL-774 C (G11)
 - 0199-99-2091
- TESLA (>2013) • DEUTZ DQC CA-14
- PORSCHE-TL-774 C (G11) OPEL-GM GMW 3420 • BMW LC-87
 - - (+B040 1065)
- VAUXHALL GM 6277M

Coolelf MDX -37°C has been acknowledge as satisfactory for use in their engines by the following manufacturers:

 VOLVO CARS 128 6083/002

• MB 326.0

- VOLVO CONSTRUCTION 128 6083/002
- VOLVO TRUCKS 128 6083/002

CUSTOMER BENEFITS

PROTECTION AGAINST CORROSION OF METALS, ESPECIALLY ALUMINIUM

Coolelf MDX -37°C provides an effective solution to the problems of corrosion affecting all the materials used in cooling circuits.

Coolelf MDX -37°C performs well in the corrosion tests required by the specifications: hot plate corrosion and glassware corrosion.

Coolelf MDX -37°C gives excellent protection against cavitation that can perforate liners and cause water pump problems.

HOMOLOGATION PROFILE COMPATIBLE WITH MTU MATERIALS

The additives in Coolelf MDX -37°C give the coolant fluid:

- · A reserve of alkalinity (to neutralise the acids resulting from the combustion gases),
- · A resistance to foaming (mainly instability of the foam that might form),
- A compatibility with hard water (maximum 40°F)

Coolelf MDX -37°C is inert to elastomeric seals and paints.

Coolant Product Range Coolelf MDX

ANAC COOLANT

Anac Coolant is an in-depth diagnostic system for the follow-up of cooling liquids and cooling systems, which allows fleet managers to reduce the maintenance costs of their machine park.

WHAT DOES IT MEASURE?

Anac Coolant determines the physical chemical properties of the cooling liquid and its protection against corrosion and temperature.

- Appearance, pH, Reserve Alkalinity, Density
- Protection against temperature: ratio antifreeze/water, freezing and boiling temperature (%, °C)
- Corrosion of the cooling system: Spectrometric determination (ICP) of elements: Fe, Pb, Cu, Sn, Cr, Al, Ni, Zn, Ba (ppm)
- Protection against corrosion:
 Determination of the concentration of corrosion inhibitors, organic and mineral. (ppm)
- Water pollutions: determination of Sulphates and chlorides concentrations, water hardness, Mg, Ca (ppm)
- Oxidation of glycol present in the cooling liquid: Glycolates (ppm)

Coolant Visio

Coolant + Pollution by sediments:

Detection and qualification of the pollution by solid particles (of medium and big dimension >5µ) by filtration and microscopic observation.



RECOMMENDED IN THE FOLLOWING CASES

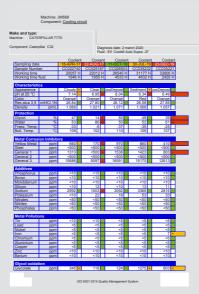
- Detailed follow-up of the coolant behavior and the condition of the system the cooling liquid is operating in.
- Punctual analysis and diagnosis in certain cases (breakdown, complaint, expertise...)
- Compliance check of the properties of the cooling liquid in use with the new cooling liquid.

RESULTS AND DIAGNOSIS

- The diagnosis report is in 95% of cases available within 1 week after reception in the lab.
- The results can be dispatched by e-mail or can be viewed on a secured portal on the Internet.

The diagnosis and comments are generated by the Anac system which is based on:

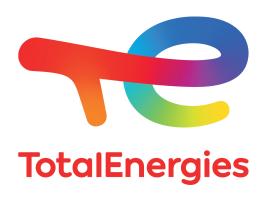
- A personalized interpretation of the diagnoses.
- Specific analysis routine for mineral and organic liquids.
- A website allowing a user-friendly management of the analyses data.
- Results available by e-mail or on a secured internet portal.
- More than 20 years of experience in coolant analyses.





17 Coolant Product Range ANAC Coolant 18





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https://lubricants.totalenergies.com/