

COOLELF MDX -37°C



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** (all engines), **MB** (all engines without limitation) and **MAN** systems.

In accordance with French Decree n° 95-337 of 20th March 1995 concerning the distribution of certain products containing monoethylene glycol, **COOLELF MDX -37°C** contains a **bittering agent to give it a bitter taste** as security against accidental ingestion by children or users.

COOLELF MDX -37°C figures as a “speciality” in our range of liquid coolants

APPLICATIONS

Protection : -37°C

● **COOLELF MDX -37°C** is a **permanent coolant fluid** that can be used throughout the year: it provides effective protection against engine freezing or overheating.

● **COOLELF MDX -37°C** is ready to use and is already mixed with demineralised water, the quality of which:

- eliminates any risk of scaling that can cause engine overheating by degrading the heat transfer properties or by blocking circuits,
- ensures practically zero electrical conductivity, reducing the causes of electrolytic corrosion.

Working life

It is recommended that the coolant fluid should be replaced **every two years**.

SPECIFICATIONS

AFNOR NFR 15-601
BS 6580

MTL 5048
MAN 324
MB P325.0
DC : MB page 326.0

● **COOLELF MDX -37°C** meets the *international specifications* for antifreezes, as well as those of major manufacturers.

● **GLACELF MDX** is officially approved by the following manufacturers:
MTU for all engines.

MAN
Daimler Chrysler for all engines.
GM-OPEL.

● **COOLELF MDX -37°C** has been recognised as satisfactory for use in the engines of the following manufacturers:

- **VAN HOOL**
- **STEYR**
- **PORSCHE**
- **VW / AUDI / SEAT / SKODA**

CUSTOMER BENEFITS

The function of a coolant fluid

● *In a petrol or diesel engine, some 30 to 40% of the heat produced in combustion is not converted into motion power and has to be dissipated. An engine's cooling system must be capable of removing this excess heat together with that due to friction of the moving parts.*

The coolant fluid cools the different parts of the engine by heat transfer and gives up heat in the radiator.

Running an engine without coolant for only a few minutes is sufficient to cause piston seizing and cracks in the cylinder head owing to heat not being removed.

Corrosion protection 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.

Air or gas can enter a circuit in various ways, after which it exacerbates the phenomenon of cavitation; also the presence of oxygen in the circuit can affect the performance of corrosion inhibitors.

Protecting aluminium water pumps against corrosion and erosion caused by cavitation

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

In the extra-severe **ASTM D2809** test on an aluminium water pump – which examines corrosion-erosion due to cavitation – **GLACELF MDX** gained a **score of 9/10**.

Adding **COOLELF MDX -37°C** gives the coolant fluid an **alkalinity reserve** (to neutralise the acidity of the combustion gases) and **resistance to foaming**.

● **COOLELF MDX -37°C** is also inert to elastomeric seals and paint.

We remind you that antifreeze and coolants containing monoethylene glycol must not be poured into the drains.

Optimised physical-chemical characteristics

They are considered as special industrial wastes (potentially hazardous to man and the environment) and should be destroyed by approved disposal centres.

CHARACTERISTICS

The typical characteristics mentioned represent mean values

| COOLELF MDX -37°C | | |
|---|-------------|----------------|
| Colour | | Green |
| Specific gravity at 15 °C | ASTM D1122 | 1.076 |
| pH, dilution 50% by vol. | ASTM D1287 | 8.1 |
| Alkalinity reserve (pH 5.5) | ASTM D 1121 | 7.7ml HCl 0.1N |
| Temperature at which crystal appear, 50% dilution by volume | ASTM D1177 | -37°C |