



ANTI-FREEZING



ANTI-BOILING



ANTI-CORROSION



# COOLELF PLUS -37°C

Ready-to-use coolant • Hybrid

## DESCRIPTION

COOLELF PLUS -37°C is a “long life” coolant based upon monoethylene glycol and inorganic corrosion 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 D3306
- ASTM D4656
- ASTM D4985
- BS 6580

The antifreeze used in COOLELF PLUS -37°C is **officially approved** by the following manufacturers:

- |                           |                         |
|---------------------------|-------------------------|
| • VW TL-774 C (G 11)      | • FIAT CHRYSLER MS-7170 |
| • AUDI TL-774 C (G 11)    | • GM-OPEL GME L1301     |
| • SEAT TL-774 C (G 11)    | • DEUTZ DQC CA-14       |
| • SKODA TL-774 C (G 11)   |                         |
| • BMW GS 94000            |                         |
| • PORSCHE TL-774 C (G 11) |                         |

COOLELF PLUS -37°C **meets the requirements** of:

- |                            |                          |
|----------------------------|--------------------------|
| • DAIMLE MB 326.2          | • IVECO standard 18-1830 |
| • FIAT-LANCIA 9.55523      | • MAN 324 Type NF        |
| • LADA TTM VAZ 1.97.717-97 | • MTU MTL 5048           |
| • CUMMINS 85T8-2           | • PERKINS                |
| • VOLVO 128 6083 /002      |                          |

## CHARACTERISTICS

COLOUR	-	BLUE GREEN
Density at 20°C	ASTM D1122	1.079
pH	ASTM D1287	8.2
Reserve Alkalinity	ASTM D1121	8.0ML HCl 0.1 N
Freezing Point	ASTM D1177	-37°C

## APPLICATION

### PROTECTION ALL YEAR ROUND

**COOLELF PLUS -37°C** ensures maximum protection against freezing, until -37°C.

### READY TO USE PRODUCT

**COOLELF PLUS -37°C** is ready for use, as a mix with demineralised water.

### LIFETIME

#### Recommended oil change interval:

- at least 250 000 km (3000 hours) in cooling systems of commercial vehicles,
- at least 100.000 km (800 hours) in cooling systems of passenger cars.
- It is recommended to drain the cooling liquid after this mileage or every 3 years (whatever occurs first).

## CUSTOMER BENEFITS

### LONG-TERM PROTECTION AGAINST CORROSION OF METALS AND OF 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 neutralise the acids resulting from the combustion gases)
- Resistance to foaming
- Compatibility with hard water (maximum 40°F).

### EXCELLENT QUALITY RATIO

**COOLELF PLUS -37°C** is inert to elastomeric seals and paints.

## 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.



## PERFORMANCES

### ASTM D1384: GLASSWARE CORROSION TEST (336H/88°C/33%VOL)

	WEIGHT LOSS(MG/COUPON)					
	Copper	Solder	Brass	Steel	Cast Iron	Aluminium
ASTM D3306 LIMITS	10	30	10	10	10	30
GLACELF	<b>2</b>	<b>-3</b>	<b>2</b>	<b>-1</b>	<b>-1</b>	<b>0.0</b>

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

	WEIGHT LOSS(MG/CM <sup>2</sup> /WEEK)
ASTM D3306 LIMITS	1.0
GLACELF	<b>&lt; 0.1</b>

### ASTM D2570: SIMULATED SERVICE TEST (HRS/°C/25%VOL)

	WEIGHT LOSS(MG/CM <sup>2</sup> )					
	Copper	Solder	Brass	Steel	Cast Iron	Aluminium
ASTM D3306 LIMITS	20	60	20	20	20	60
GLACELF	<b>7</b>	<b>-1</b>	<b>6</b>	<b>-1</b>	<b>-3</b>	<b>1</b>

### GM-OPEL: HOT FINGER TEST

	WEIGHT LOSS(MG/COUPON)					
	Copper	Solder	Brass	Steel	Cast Iron	Aluminium
	44% solution					
GM LIMITS	10	30	10	10	10	30
GLACELF	<b>10</b>	<b>20</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>20</b>
	25% solution					
GM LIMITS	10	20	10	10	10	20
GLACELF	<b>2</b>	<b>-3</b>	<b>2</b>	<b>-1</b>	<b>-1</b>	<b>0</b>