

## Longlife Cooling Fluid -38°C G12+

**Cooling Fluid -38°C G12+** is used as a heat transfer fluid in combustion engines.

The heat from the internal combustion is brought to the radiator where the mixture is cooled by means of air.

**Cooling Fluid -38°C G12+** provides maintenance-free protection against frost and corrosion throughout the life of the engine.

By using patented silicate-free technology based on Organic Acid Technology (OAT) organic acids), **Cooling Fluid -38°C G12+** provides a lifetime of corrosion protection for aluminum and iron alloys. The degradable corrosion inhibitors extend the service life, providing superior protection of at least 700,000 km or 8,000 hours.

### Advantages

---

Excellent and permanent high temperature corrosion protection is guaranteed for the aluminum parts in modern combustion engines.

**Cooling Fluid -38°C G12+** provides excellent cavitation protection without the use of nitrite.

— **Heat transfer**

De Carboxylzuren zorgen voor een monomoleculaire beschermingslaag. In vergelijking met de traditioneel silicaat houdende producten zorgt **Cooling Fluid -38°C+** voor een aanzienlijk betere warmte overdracht.

— **Low inhibitor consumption**

The inhibitors in **Cooling Fluid -38°C G12+** have a very low consumption in contrast to traditional nitrite and silicate-based coolants.

**Cooling Fluid -38°C G12+** protects against local corrosion and cavitation on cylinder bushings with the addition of additional additives. Very long service life, often for the entire life of the engine or vehicle, is obtained through applications of "non-consuming corrosion inhibitors". The excellent corrosion protection and the low consumption of the inhibitors, results in less refilling and less maintenance costs. Tests on a diversity of fleets have shown that the average life of the pump is extended by 50%.

**Cooling Fluid -38°C G12+** is a modern cooling medium based on ethylene glycol, with frost protection of -38°C.

**Cooling Fluid -38°C G12+** minimizes engine cooking by increasing the boiling point and provides extra protection during hot summer days or during harsh operating conditions such as in the mountains or holiday trips with the caravan.

**Cooling Fluid -38°C G12+** is miscible with other refrigerants based on ethylene glycol and is compatible with the most common seals. It does not have a negative effect on rubber hoses. **Cooling Fluid -38°C G12+** complies with and is recommended by the larger European car and truck manufacturers because it is free of silicates. In many cases, the standard recommendation is exceeded.

**Cooling Fluid -38°C G12+** is particularly recommended for modern engines, where the protection of aluminium at high temperatures is very important. It is also recommended for modern engines that are made or equipped with cast iron, aluminum or combinations thereof and in cooling systems made of Aluminum and copper alloys.

**Specifications**


---

- Mercedes-Benz/Daimler Chrysler MB 325.0, MB 325.2, MB 325.3,
- Volkswagen TL-VW 774 D (G12) , TL-VW 774 F (G12+)
- Cummins, DAF 74002,
- Deutz-MWM Detroit Diesel (incl. Powercool plus), 0199-99-1115 / 0199-99-2091
- Ford WSS-M97B44-D, Landrover, Aston Martin, Jaguar
- General Motors B0401065 en
- Saab/Opel GM6277M
- Mazda, MG-Rover, PSA, Mitsubishi
- Suzuki, Yanmar, Daewoo, Nissan
- MAN 324 Typ SNF,
- Volvo Trucks
- Renault Type D, Scania TB1451
- Fiat 9,55523 / Iveco standard 18-1830
- BS 6580, BR-637, SAE J1034
- ASTM D3306/D4656/D4985
- JASO M325, NATO S-759, JIS K2234
- Fendt, John Deere JDMH5
- Behr, Jenbacher, ADE, MAK
- MTU MTL 5048
- Isuzu, Komatsu, Karosa
- Leyland-DAF, Wärtsilä
- Liebherr
- JIS K2234 Class 2 (LLC)

**Specific data**

Test			Results
Classe - coolant	Method	Unit	Longlife Cooling Fluid -38°C G12+
Water content weight		%	max. 53
pH			7,0 - 7,6
C Specific gravity 15°C	ASTM D5931	kg/dm3 typ.	1.110 to 1.145
Specific gravity 20°C	ASTM D5931	kg/dm3 typ	1.113
Equilibrium boiling point	ASTM D1120	°C	>140°C typ
Reserve alkalinity pH 5.5	ASTM D1121		3.1 typ.
pH, 20°C	ASTM D1287	°C typ.	8.6
Refractive Index, 20°C	ASTM D1218	°C typ.	1.430
Foaming @25°C	ASTM D1287		50ml typ.
break time			5 sec typ.
Initial frostbite	ASTM D1177		<-37°C



**Article number** 83351  
**Contents** 1 liter

**Article number** 83355  
**Contents** 5 liter

**Article number** 83382  
**Contents** 25 liter

**Article number** 83386  
**Contents** 60 liter

**Article number** 83392  
**Contents** 210 liter