

MANNOL Antifreeze AF13++ (-40 °C) HIGH-PERFORMANCE

4015

Low-hybrid (LOBRID) high-technology top-grade last-generation ecological ready-to-use solution (not requiring being diluted and protecting the vehicle cooling system at up to -40 °) with excellent operating characteristics, designed for a year-round use in any modern cooling system for which the use of mono-ethylene-glycol-based antifreeze is recommended.
It ensures a reliable protection of any cooling system.

Product properties:
- It ensures an excellent protection of metals and alloys (brass, copper, alloy-treated steel, cast iron, aluminium) from all forms of corrosion, as well as prevents a high-temperature corrosion of aluminium surfaces of modern engines;
- The non-organic additive package protects the surface at once and the organic part starts to act only when corrosion sources appear thus a maximum protection is reached from the start of use and the service life of the engine is extended;
- It has an exceptional thermal stability. It protects from deposit formation;
- It has excellent heat conductivity properties and a resistance to foam formation;
- It is neutral to inserts and hoses, compatible with all types of rubber and plastic parts of the cooling system;
- It has an excellent resistance to hard water and very low corrosion inhibitor depletion rates;
- The high-efficiency additive package ensures an exceptional stability of operating properties of the antifreeze throughout the entire service life;
- It is a low silicate liquid. It does not contain nitrates, phosphates and amines (the NAP free technology and OAT – Organic Acid Technology);
- The balanced additive package allows maximally extending the service life of the solution.
- It surpasses requirements of international standards and the majority of European car manufacturers.

It is recommended for engines of passenger cars and engines of modern commercial vehicles.
In order to achieve the best qualities, do not dilute the solution!

Colour: red.

Service life: no less than 5 years.
Comply with the manufacturer’s instructions provided in the user’s manual!

Recommendation
SAE J1034
AFNOR FRANCE NF R15-601 (except for RA)
ASTM USA D3306
ASTM USA D4656
ASTM USA D4985
BSI GB BS 6580:2010
CUNA ITALY NC 956-16
FVV GERMANY Heft R443
NATO S-759
UNE SPAIN 26-361-88/1
VOLKSWAGEN TL 774 G
VOLKSWAGEN TL 774 J
CUMMINS CES 14603
IRIZAR
LIEBHERR Minimum LH-01-COL3A
MAN 324 Si-OAT
MB 326.6
MB 326.5
SMART MB 326.0
SCANIA
Others NFR France 16-601

PACKAGING

5L	MN4015-5	Plastic	
20L	MN4015-20	Plastic	
10L	MN4015-10	Plastic	
1L	MN4015-1	Plastic	20 pcs/box