

MANNOL Antifreeze AF12+ (-40 °C) Longlife

4012

A carboxylated (organic – OAT Organic Acid Technology) ready-for-use solution, designed for a year-round use in any modern cooling systems for which the use of ethylene-glycol-based antifreeze is recommended. It ensures a reliable protection of any cooling system.

Product properties:
- It ensures a reliable 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;
- 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 components of a cooling system;
- It has an excellent resistance to hard water and very low corrosion inhibitor depletion rates;
- The highly effective carboxylated additive package (OAT) ensures an exceptional stability of service qualities of the antifreeze throughout the entire service life;
- It does not contain silicates, nitrates, phosphates and amines (the NAP free technology);
- It has an extended service life in cooling systems: of passenger cars – up to 250 thousand km; of commercial vehicles – up to 500 thousand km; of stationary engines – up to 6 years.

It is recommended for engines requiring enhanced heat dissipation: highly accelerated engines, engines with a turbocharger and cooling systems of modern commercial vehicles.

Colour: red.

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

Recommendation
SAE J1034
JASO M325
AFNOR FRANCE NF R15-601 (except for RA)
ASTM USA D3306
ASTM USA D4656

ASTM USA D4985
ASTM USA D6210
BSI GB BS 6580:2010
FVV GERMANY Heft R443
KSM SOUTH KOREA 2142
MIL BELGIUM BT-PS-606-A
MIL FRANCE DCSEA 615/C
MIL ITALY E/L-1415b
MIL SWEDEN FSD 8704
NATO S-759
OENORM AUSTRIA V5123
UNE SPAIN 26-361-88/1
ADE
ASTON MARTIN
VOLKSWAGEN TL 774 D
VOLKSWAGEN TL 774 F
BEHR
BERGEN ENGINES 2.13.01
BMW GS 94000
BRB BR 637
CASE NEW HOLLAND MAT 3624
CATERPILLAR MAK A4.05.09.01
CHEVROLET
CLAAS
CUMMINS CES 14439
CUMMINS CES 14603
CUMMINS IS series N14
DAF 74002
DETROIT DIESEL 93K217
FENDT
FORD WSS-M97B44-D
GREAT WALL
HITACHI
ISUZU
JAGUAR CMR 8229
JAGUAR STJLR.651.5003
JENBACHER TA 1000-0201
JOHN DEERE JDM H5
KAROSA
KOBELCO
KOMATSU 07.892 (2009)
LAND ROVER STJLR.651.5003
LEYLAND TRUCKS DW03245403
LIEBHERR MD1-36-130
MACK 014 GS 17009
MAN 324 SNF
MAN B W A S
MAN B W DIESEL AG D36 5600
MAZDA MEZ MN 121 D
MB 325.3
MB 326.3 (Premix)
MINI GS 94000
MITSUBISHI MHI
MTU MTL 5048
MWM 0199-99-2091/11
RENAULT 41-01-001/Type D

PACKAGING

5L	MN4012-5	Plastic	
1000L	MN4012-IBC	Pallet tank	
208L	MN4012-DR	Drum	
60L	MN4012-60	Drum	
20L	MN4012-20	Plastic	
10L	MN4012-10	Plastic	
1L	MN4012-1	Plastic	20 pcs/box