



## MANNOL Antifreeze AG13 Hightec

4113

A hybrid (HOAT – Hybrid Organic Acid Technology) high-technology concentrated antifreeze with excellent operating characteristics intended for a year-round use in any modern cooling system for which the use of monoethylene-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 provides sufficient anti-corrosion properties from the concentration as low as 30%:
- 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 components of a 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 contains a fluorescent dye allowing identifying even small leakages of the antifreeze in the UV light;
- It is a liquid with an elevated level of borates and silicates. It does not contain nitrates, phosphates and amines (the NAP free technology).

Colour: green.

Service life: no less than 3 years.

Comply with the manufacturer's instructions provided in the user's manual!

Specifications Approval

Recommendation

SAE J1034

AFNOR FRANCE NF R15-601

ASTM USA D3306

ASTM USA D4340

ASTM USA D4985

BSI GB BS 6580:2010

**NATO S-759** 

BMW GS 94000

CHRYSLER MS-7170

FORD ESE-M978B4H-A

FORD AF Plus

GM 1825 M

GM 1899 M

**GM SATURN** 

**JAGUAR** 

JOHN DEERE

MAN 324 Typ NF

MB 325.0

MINI GS 94000

MTU MTL 5048

OPEL GME L1301

OPEL GM QL130100

VAUXHALL GME L1301

## **PACKAGING**

5L	MN4113-5	Plastic	
1000L	MN4113-IBC	Pallet tank	
208L	MN4113-DR	Drum	
60L	MN4113-60	Drum	
20L	MN4113-20	Plastic	
10L	MN4113-10	Plastic	
1L	MN4113-1	Plastic	20 pcs/box