

## KRAMP ANTIFREEZE K12+

Violet colored universal coolant, free of nitrite, phosphate and silicate.  
Concentrate

### Description

**KRAMP ANTIFREEZE K12+** is a violet colored, silicone-free coolant for dilution in water. It protects against corrosion and cavitation and also prevents deposits and foaming. **KRAMP ANTIFREEZE K12+** exceeds the requirements of most manufacturers as well as - international standards. The product does not cause damage to seals and hoses. **KRAMP ANTIFREEZE K12+** is suitable for change intervals of up to 8 years. It is compatible with all silicone-free branded anti-freeze agent and products with MB 325.0 approval.

### Application

**KRAMP ANTIFREEZE K12+** has been specially developed for modern watercooled internal combustion engines, also suitable for aluminium engines. Before adding **KRAMP ANTIFREEZE K12+** to the cooling circuit, it should be mixed with water to a concentration of 30 to 50 vol. %. For the preparation of the anti-freeze solution, use only clean water that is not too hard. The analytical values of the water must not exceed the following limit values:

Water hardness: 0-20° dH (0-3.6 mmol/l)

Chloride concentration: max. 100 ppm

Sulphate concentration: max. 100 ppm

### Product data

Properties	Unit	Value*
Density 20 °C	g/cm <sup>3</sup>	1,113
Boiling point	°C	170

\* are average values and may vary in the framework of the standard.

### Performance

AS 2108-2004	ASTM D1384
ASTM D2870	ASTM D3306
ASTM D4340	BS 6580
MB 325.3	SAE J 1034
MAN 324 Typ SNF	JIS K 2234
PN-C-40007	Ford WSS-M97B44-D
GM 6277M	GMW3420
ÖNORM V 5123	VW TL 774 Typ D/F (K 12+)

### Mixing table

Anti-freeze agent	Water	Frost protection to
1	2	Min. -18°C
2	3	Min. -25°C
1	1	Max. -37°C