



Antifreeze KS 13

Antifreeze, Si-OAT-coolant additive concentrate (colour: pink / violet)

Description:

Antifreeze KS 13 is an ethanediol (ethylene-glycol, MEG) based full concentrate which acts as antifreeze and heat transfer medium for the summer and winter operation, which enables the maintenance-free protection against frost, overheating and rust formation.

Antifreeze KS 13 is a Lobrid product, which means that it is formulated on the basis of organic inhibitors in combination with inhibitors of mineral (silicate). Therefore, it provides not only maintenance-free protection against freezing and cooking, but also long-term protection against corrosion (Si-OAT-coolant).

Antifreeze KS 13 is borate, nitrite, amine and phosphate free.

Properties:

- Long-life radiator protection
- Excellent heat transfer
- Forms a constant homogeneous protective layer
- Protection of all metals, including aluminum, due to highly effective additives
- Silicate stabilised, i.e. no gel formation or flocculation
- Environmentally friendly due to the non-use of borates, nitrites, amines and phosphates

Application:

Antifreeze KS 13 can be used without restriction in motors of cast iron, aluminum, or a combination of both metals in cooling systems made of aluminum or copper alloys.

Antifreeze KS 13 is particularly recommended for aluminum engines, where a special protection at higher temperatures is required.

Recommended concentration is 50% **Antifreeze KS 13** and 50% water, with a frost protection of -35 ° C is reached.

Mixtures with more than 70 vol. % are not recommended as the maximum achievable frost protection (-69 ° C) is reached at 68 vol. %.

Special attention must be paid to the measurement of the freezing point.

Refractometers are often used to determine the freezing point. In the case of **Antifreeze KS 13** this measurement leads to incorrect results. This is due to the glycerol content in the coolant.

Due to the MEG scale of the refractometer the test method described in the ASTM D3321 leads to an incorrect assessment.

In the following table is listed for various dilutions, the measurement data and readings of each corresponding density, the refractive index, and the reading of the Refraktometer *.

The table also shows the different results to the two standard methods of measuring antifreeze ASTM D3321 and ASTM D 1177.

Suitable for/ we recommend this product for:

We recommend this product for:	
ASTM	D 3306 Type V
AUDI, (BENTLEY, BUGATTI, LAMBORGHINI), SEAT, SKODA	G 13
BS	6580 : 2010
VW	TL 774 J (G13)

Miscibility:

- **Antifreeze KS 13** is miscible with most coolants based on ethylene glycol. For optimum corrosion protection and effect of inhibitors the use of pure **Antifreeze KS 13** is recommended.

Antifreeze KS 13

Article No.	Packaging unit	
510222	Can	1 L
510223	Can	1500 ml
510224	Can	5 L
510225	Can	20 L
510226	Drum	60 L
510228	Drum	200 L
510229	PE-Container	1000 L

Typical characteristics:

Specific weight at 20°C	kg/m ³	1,140
Boiling point	°C	>170
ph-Value (20°C)		8,6
Pour point antifreeze/water=1:1 °C		-35
Glycerol	%	Max. 20
Reserve alkalinity		5,7
Colour		pink (violet)

