



Antifreeze X 12++

Radiator protection, Si-OAT-coolant additive concentrate (Colour: pink/violet)

Description:

Antifreeze X 12++ is a full concentrate radiator guard and heat transfer medium based on ethylene glycol with a silicon additive package for both summer and winter operation that gives maintenance-free protection against frost, overheating and rust formation (long-life radiator protection).

Antifreeze X 12++ is a new modern cooler protection and heat transfer medium with high-quality anti-corrosion additives for engine and cooling system. It corresponds to the current requirements of numerous OEMs and is superbly enhanced by organic and silicate technologies (Si-OAT-coolant).

Antifreeze X 12++ is free from borate, nitrite, amine and phosphates.

At the correct concentration of radiator antifreeze, vehicle tests have shown that an effective corrosion protection for passenger cars of 250,000 km and for commercial vehicles of 500,000 km can be achieved. It is recommended to change the antifreeze after reaching the mileage or after 5 years.

Properties:

- Long-life radiator protection
- Improved heat transfer
- Uniform and homogeneous protective layer
- Silicate stabilised, i.e. no gel formation or flocculation
- Suitable for mixed fleets: product for cars, trucks and construction machinery
- Kind to the environment due to an extended life cycle
- Avoidance of foaming
- Compatibility with hose and sealing materials
- Compatibility with varnishes

Application:

Antifreeze X 12++ is outstanding for engines made of cast iron, aluminium or a combination of both metals. It can also be used in cooling systems made from aluminium or copper.

Antifreeze X 12++ is particularly recommended for light metal engines which demand special aluminium protection at higher temperatures.

Recommended concentration for use 50% **Antifreeze X 12++** and 50% water which gives a frost protection of -37°C. Frost protection of up to -68°C is possible with maximum 69% **Antifreeze X 12++** and 31% water.

Suitable for/ we recommend this product for:

We recommend this product for:	
AFNOR	NF-R 15-601 Type 1
AS	2108 : 2004
ASTM	D 3306 Type I
ASTM	D 4985
AUDI	
BENTLEY	
BS	6580
BUGATTI	
CHINA GB	29743-2013
CUMMINS	CES 14603
CUNA	NC 956-16
JIS	K 2234 : 2006
LAMBORGHINI	
MAN	324 Si-OAT
MB	325.5, 325.6
MTU	MTL 5048

Data are subject to change.

Attention: Service instructions should be observed!

KC/WI/
09/2016

NATO	S 759
PORSCHE	
SAE	J 1034
SANS	1251 : 2005, SH 0521-1999
SCANIA	TB 1451
SEAT	
SKODA	
UNE	26361-88
VW	TL 774 G (G12++)

Miscibility:

- **Antifreeze X 12++** is miscible with most coolants based on ethylene glycol. To achieve an optimal corrosion protection and to avoid sludge formation it is recommended to use pure **Antifreeze X 12++**. For the preparation of mixtures softened water should be preferred.
We recommend to drain the cooling system and to flush it with clean water before use.

Antifreeze X 12++		
Article No.	Packaging unit	
510392	Can	1 L
510393	Can	1500 ml
510394	Can	5 L
510395	Can	20 L
510396	Drum	60 L
510398	Drum	200 L
510399	PE-Container	1000 L

Typical characteristics:		
Specific weight at 15°C	kg/m ³	1,110-1,145
Boiling point	°C	>167
ph-value	(50 vol.%)	8,4
Water content	%	max. 4
Pour point antifreeze/water=1:1	°C	-37
Pour point antifreeze/water=1:2	°C	-19
Reserve alkalinity		9,0
Colour		pink (violet)

