



Antifreeze S 12++

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

Description:

Antifreeze S 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 S 12++ is the latest 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 S 12++ is free from borate, nitrite, amine and phosphates.

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

Recommended concentration for use 50% **Antifreeze S 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 S 12++** and 31% water.

Antifreeze S 12++ meets the requirements pursuant to VW TL774 G (G12++) for passenger cars of the VW group from 2008; also recommended for build years after 2005.

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, D 4985 |
| AUDI, (BENTLEY, BUGATTI, LAMBORGHINI), SEAT, SKODA | G 12 ++ |
| BS | 6580 |
| CHINA GB | 29743-2013 |
| CUMMINS | CES 14603 |
| CUNA | NC 956-16 |
| JIS | K 2234 : 2006 |
| MAN | 324 Typ Si-OAT |
| MB | 325.5, 325.6 |
| MTU | MTL 5048 |
| NATO | S 759 |
| SAE | J 1034 |
| SANS | 1251 : 2005, SH 0521-1999 |
| SCANIA | TB 1451 |

Data are subject to change.

Attention: Service instructions should be observed!

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09/2016

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| UNE | 26361 - 88 |
| PORSCHE | |
| VW | TL 774-G (G12++) |

Miscibility:

- **Antifreeze S 12++** is miscible with most coolants based on ethylene glycol (VW G11, G12 VW, VW G12 +). To achieve an optimal corrosion protection and to avoid sludge formation it is recommended to use pure **Antifreeze S 12++**. For the preparation of mixtures softened water should be preferred.

| Antifreeze S 12++ | | |
|--------------------------|-----------------------|---------|
| Article No. | Packaging unit | |
| 510232 | Can | 1 L |
| 510233 | Can | 1500 ml |
| 510234 | Can | 5 L |
| 510235 | Can | 20 L |
| 510236 | Drum | 60 L |
| 510238 | Drum | 200 L |
| 510239 | PE-Container | 1000 L |

Typical characteristics:

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|------------------------------------|-----------|---------------|
| Specific weight at 20°C | kg/m³ | 1,110 - 1,12 |
| Boiling point | °C | >170 |
| ph-value | (40 Vol.) | 8,4 |
| Water content | % | max. 3 |
| Pour point antifreeze/water=1:1 °C | | -37 |
| Refraction at 20°C | | 1,432 |
| Reserve alkalinity | | 6,0 |
| Colour | | pink (violet) |

