

TECH TOPIC - COOLANT

There are 3 types of coolant, what's the difference?

Coolant (or antifreeze) protects your engine from the effects of heat, while defending engine components against corrosion and cavitation. Coolants help to keep the engine operating at an optimum working temperature.

There are 3 main coolant types, much simpler than engine oil! The main difference is the Additive Package & Inhibitors, as below;

IAT, Inorganic Acid Technology

Normally Green in colour these are the traditional, old school, type of anti-freeze most commonly used in North America or in low technology applications. Will usually contain silicates and phosphates. Service life: 50,000 km or once every 2-3 years. We do not recommend the use of these coolants in any modern vehicles.

OAT, Organic Acid (or Additive) Technology

OAT stands for Organic Acid Technology. OAT anti-freeze contain ingredients such as 2-EHA, sebacate and other various organic acids. Unlike green anti-freeze, they generally do not contain silicates or phosphates. They will often be coloured pink, purple or blue. Service life is five years or 650,000 kms.

Commonly used in VAG passenger cars, MAN and MB trucks. European OEM predominantly.

HOAT or HAT, Hybrid Organic Acid Technology

HOAT stands for Hybrid OAT. These antifreeze use organic acids but not 2-EHA and usually include silicates to provide protection for aluminium surfaces. HOAT anti-freezes are used by many European car manufacturers, although they are also used by American companies such as Chrysler and Ford. A HOAT coolant will need to be changed every five years or 950,000 kms. Suitable for use in the broadest spectrum of trucks and cars.

Often dyed Red, Yellow or Blue.

Note: It is not recommended to mix different types of coolant as some sludging may occur.



Boost your knowledge on coolant!

Quality Range Stocked NZ-Wide

Does the Colour matter?

The colour is just a dye, it has no active ingredients. It is normally designed to indicate the type of coolant, or to differentiate one OEM product from another and identify leaks.

Concentrate or Pre-mixed?

1. Concentrate

Advantages - you can change the mix ratio to suit your climate and the cost of shipping is lower. Disadvantages - there is a chance of the mix being incorrect and it is rare to find anyone using de-mineralized / de-ionised water.

2. Pre-Mixed

As it says this product is pre-mixed with de-mineralized / de-ionised water to a 50:50 ratio. Advantages are that anyone can top up the system without having to think about the mixing giving peace of mind to the fleet owner, it is much better for the cooling system by reducing the risk of scale and calcium build up.

Our VERTEX Coolant range ...



Autocool - HOAT

A low silicate phosphate free proprietary blend designed to meet the performance requirements of passenger cars, 4WDs and light commercial vehicles. It is aluminium compatible. Borate, nitrite, amine and phosphate free.

Drain intervals:
3 years or 250,000

Pack sizes available:
1, 5, 20 & 205 litres



HDD Cool - HOAT

A super long life anti freeze, anti boil product for use in all radiator types. Vertex HDD Cool is manufactured using Hybrid Additive Technology. Nitrite Free formulation.

Primarily for use in mixed fleet applications, and those applications not requiring an SNF or Si-OAT coolant.

SCA (supplementary coolant additive) compatible if and when required by OEM.

Drain intervals:
5 years or 950,000

Pack sizes available:
5, 20 & 205 litres



Red Cool 950 MG - HOAT

A super long life anti freeze, anti boil product for use in all radiator types. Vertex Red Cool 950 MG XL is manufactured using Hybrid Additive Technology. Nitrite Free formulation. Primarily for use in mixed fleet applications, both heavy and light duty.

SCA (supplementary coolant additive) compatible if and when required by OEM.

Drain intervals:
5 years or 950,000

Pack sizes available:
5, 20 & 205 litres



Glystantin® G40 - OAT

A premium-grade concentrate coolant that belongs to the new generation of Glystantin® products. This product employs hybrid organic acid technology (Si-OAT).

Designed primarily for use in European OEM's such as Mercedes Benz, MAN and VAG vehicles. It fully meets or exceeds standard industry requirements for automotive, light duty, and heavy duty diesel applications.

Drain intervals:
5 years or 650,000

Pack sizes available:
20 & 205 litres



PG Cool - HOAT

A Propylene Glycol based long life hybrid antifreeze / coolant. Contains very low silicates and is nitrite, phosphate and amine free. Designed primarily for use in mixed fleet applications, and those applications where the toxicity of the coolant is an issue. Provides excellent high temperature protection and long term corrosion protection for aluminium, cast iron, brass, copper, steel and solder.

Drain intervals:
5 years or 950,000

Pack sizes available:
20 & 205 litres

