

**SUBZERO G12++****SOAT – SILICATED ORGANIC ACID TECHNOLOGY****PRODUCT DESCRIPTION:**

SUBZERO G12++ is a concentrated coolant that serves as an anti-freeze and anti-boil solution. It is based on Ethylene Glycol and incorporates a technologically advanced Si-OAT (Organic Acid Technology) inhibitor system that is free from Phosphate, Amine, Borate, and Nitrite. The formulation of the extended long-life inhibitor helps prevent rust, corrosion, cavitation, and degradation of the cooling system. SUBZERO G12++ meets the requirements of the latest VW coolant specification VW TL 774-G (G12++) and is designed to provide a service life of 8 years or 500,000 km.

**APPLICATION:**

SUBZERO G12++ is suitable for engines made of cast iron, aluminum, or a combination of both, as well as cooling systems with aluminum and/or copper alloys. It is particularly recommended for all-alloy engines that require special aluminum protection at higher temperatures. This radiator antifreeze is suitable for various vehicles including passenger cars, commercial vehicles, buses, agricultural machines, as well as stationary engines and devices. To fill the cooling system, SUBZERO G12++ should be mixed with water according to the desired ratio, and it is recommended to use distilled water. However, if the water hardness is not greater than 3.6 mmol/l, dilution with tap water is also possible. It is generally advised to blend SUBZERO G12++ with water in a concentration of 33% to 60% by volume, with a 50/50 ratio of water and SUBZERO G12++ being commonly recommended.

**Analysis values of the water may not exceed the following threshold values:**

Water hardness: 0 – 3.6 mmol/l

Chloride content: max. 100 ppm

Sulfate content: max. 100 ppm

**FEATURES & BENEFITS:**

- Outstanding corrosion protection
- Contains no amines, borates, nitrites or phosphates
- Protects against overheating
- Anti-cavitation, preventing foam and the retention of air,
- ensuring the good performance of the pump.
- Prevents the buildup of deposits, keeping the cooling system clean.
- Long life service product

**SUBZERO G12++ FULFILLS THE FOLLOWING COOLANT STANDARDS:**

AS 2108-2004, ASTM D 3306, ASTM D 4985, BS6580:2010, CUNA NC 956-16, AFNOR NFR 15-601, JIS K 2234:2206, PN-C 40007:2000, SAE J1034, ÖNORM V 5123, SANS 1251:2005 and China GB 29743-2013

**PERFORMANCE LEVELS / MEETS OR EXCEEDS:**

Audi TL 774-G, Bentley TL 774-G, Bugatti TL 774-G, GM 6277M, Cummins CES 14603, Deutz DQC CC-14, Ducati (TL 774-G), Lamborghini TL 774-G, MAN 324 Typ Si-OAT, MB 325.6, MB 326.6 (Ready Mix), MB 325.5, MB 326.5 (Ready Mix), MTU MTL 5048, Porsche TL 774-G, Seat TL 774-G, Skoda TL 774-G, VW TL 774-G, FORD WSS-M97B44-D.

**TYPICAL PROPERTIES:**

PARAMETERS	ASTM	UNIT	SUBZERO G12++	
			SUBZERO G12++ Concentrate	SUBZERO G12++ (50% Ready Mix)
pH	D1278	cSt	8.5	8.3
Freezing Point	D1177	°C	-37	N/A
Boiling Point	D1120	cSt	182	108
Density @15.5C	D4052	g/cm3	TBR	TBR

**DISCLAIMER:**

The test data provided is not a final specification; rather, it serves as a guideline and may vary within acceptable production tolerances. Bravoil reserves the right to modify this test data. Any updates will supersede previous versions, so please refer to the most recent Technical Data Sheet (TDS).

**HEALTH & SAFETY, ENVIRONMENT:**

Prolonged and repeated contact with oil may cause skin disorders. Avoid contact. Wash immediately with soap and water. Do not discharge used oil in to drains or the environment. Dispose to an authorized used oil collection point. For further information on Safety Guidelines please refer to MSDS available on our website [www.bravoil.ae](http://www.bravoil.ae)

**HEALTH & SAFETY:**

This product is not likely to present any significant health or safety hazards when properly used in the recommended application and good standards of personal hygiene are maintained. Reference is made to the Safety Data Sheet (SDS) which is available on request via your local sales office or via the internet [www.bravoil.ae](http://www.bravoil.ae)

**PROTECT THE ENVIRONMENT:**

Take used oil to an authorized collection point. Comply with local regulation. Do not discharge into drains, soil or water.

**STORAGE:**

We recommend to store all packages under cover. In case outside storage is unavoidable, drums should be laid horizontally to avoid the possible ingress of water and damage to drum markings. Products should never be stored above 60°C, exposed to hot sun or freezing conditions.