



AUTOMOTIVE LUBRICANTS

COOLANTS

GLACELF SUPRA

GLACELF SUPRA is a "Long Life" coolant formulated from an extremely pure monoethylene glycol base and containing corrosion inhibitors developed from the very latest techniques in materials protection in corrosion environments. Its unique environment friendly formula is completely free from phosphates, amines, nitrates and boron, providing extended component lifetime through optimal engine cooling. It gives permanent corrosion protection to all metals in the cooling circuit.

SPECIFICATION

GLACELF SUPRA meets the specifications established by the major manufactures and is approved by RENAULT and RENAULT VI in compliance with user requirements 41-01-001/P <<type D>>.

Complies with the standards:

- AFNOR NFR 15-601
- BS 6580-BS 5117
- ASTM D 3306
- SAE J 1034

APPLICATIONS

GLACELF SUPRA is recommended for cooling IC engines in light vehicles, lorries, public works vehicles, agricultural tractors and stationary engines.

GLACELF SUPRA should be diluted in water before use to provide a permanent fluid that can be employed all year round. The proportion of GLACELF SUPRA can be adjusted to obtain the desired protection against frost:

% vol. of Glacelf Supra	10	20	30	40	50
Freezing Point °C, ASTM D 1177	-3	-9	-18	-25	-37

Average values given as examples

Before refilling a circuit that previously contained another fluid, it is strongly recommended to rinse the circuit so as not to alter the properties of the product.

PROPERTIES

In the face of increased engine power output and the engine's containment designed to enhance vehicle aerodynamics, a large amount of calories must now be evacuated. At the same time, engines are tuned so as to operate in very specific temperature ranges. GLACELF SUPRA has an additive formula that maintains the "ideal" cooling characteristics prescribed by manufacturers in order to:

- Reduce the time needed to reach optimal working temperature, so achieving rapid delivery of engine performance.



- Maintain good thermal distribution between the different mechanical parts so as restrict expansion while retaining operating clearances.
- Eliminate the risks of overheating that would cause parts to deform as well as reduce their mechanical strength.
- Preclude thermal degradation of the lubricant, which would lead to engine deterioration.

In the quest to produce lighter weight vehicles, developments in engine design have turned towards the use of very different types of metals, especially light alloys. As these new materials are more sensitive to corrosion, they fully vindicate the development of GLACELF SUPRA, incorporating a new generation of additives.

This new generation of additives:

- offers an effective solution to the problems of corrosion to all materials used in cooling circuits,
- provides enhanced protection against cavitation that could pierce linings and damage water pumps,
- does not engender any form of deposits that would change the cooling capabilities either by increasing heat transfer strength or by blocking the circuits,
- Integrates an alkalinity reserve capable of neutralizing acid combustion gases, which inevitably get into the cooling circuit,
- Allows total compatibility with hard waters, thus avoiding scale formation,
- Is not harmful to joints, hoses and plastics, thereby obviating any risk of leaks,
- Uses a novel principle that consumes an infinitesimal amount of additives giving sustained efficiency over a time period far exceeding that available from most products on the market.

TYPICAL CHARACTERISTICS	TEST METHOD ASTM	COOLELF SUPRA
COLOUR		Fluorescent Orange
Density at 15oC	ASTM D 1122	1.114
pH	ASTM D 1287	8.5
Alkalinity reserve at equivalence point	GFC Pr L-111-03	36
Freezing temperature	ASTM D 1177	-13

(Characteristics of this chart are indicative typical values)

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