ELF SK 35

"Unleaded competition fuel for Superkart 250cc"

Using pure bases, our formulas guarantee naturally stable, long-lasting properties, consistent from one production batch to another. This search for constant and optimum quality gives you first class performance, in conformity with official regulations.

Use

- **ELF SK 35** is an unleaded fuel for 2-stroke engines exclusively for use in Superkart 250cc.
- Complies with CIK 2008 regulations.
- Optimised within the limits of CIK regulations, **ELF SK 35** provides excellent anti-knocking and a very high combustion speed.
- The official fuel of the European CIK Superkart championship in 2006, **ELF SK 35** is widely used by the most competitive teams in European, French and Swedish Superkart championships.
- **ELF SK 35** is particularly suited to Superkart.

Characteristics

		Typical data	CIK regulations
OCTANE NUMBER	RON	100.5	95 to 102
	MON	89.7	85 to 90
DENSITY	kg/l at 15°C	0.755	0.725 to 0.780
OXYGEN	% m/m	2.5	3.7 max
AIR/FUEL RATIO		14.10	
VAPOUR PRESSURE	Bar at 37.8°C	0.500	0.700 max
DISTILLATION (°C)	% vol. at 70°C	27	10 to 47
	% vol. at 100°C	47	30 to 70
SULPHUR	mg/kg	< 10	150 max

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Properties

Fuel characteristics	→	Technical gains	→	Engine benefits
Oxygen content set to CIK upper regulatory limit	→	Greater **filling capacity** through air/fuel mixture cooling	→	**Spontaneous power gains (without special tuning)** **Excellent engine response in transient phase**
Octane content set to CIK upper regulatory limit	→	Excellent **anti-knocking**	→	**Perfect reliability under prolonged high speed**
Strong **olefin content**	→	**High combustion speed**	→	**Better engine speeds and a better combustion yield**

Recommendation

- **ELF SK 35** provides significant gains in power and reliability, with no fine-tuning.
- To get the full benefit of this product, the engine mapping must be optimised (Air/Fuel ratio, ignition sequence).
- **ELF SK 35** can be mixed with the lubricant **ELF HTX 909** or with **ELF HTX 976**, for even more efficiency.

Storage

To preserve its original properties and comply with the Health and Safety rules pertaining to fuels, **ELF SK 35** must be handled and stored away from sunlight and bad weather and properly resealed in its drum after each use, to avoid loss of the lightest particles.

Glossary

RON & MON: The RON & MON characterize the resistance to knocking (see definition) of a fuel used in a spark-ignition engine. The RON is representative of the functioning of an engine

running in cold and low speed condition, while the MON is representative of an engine running in warm and high speed condition.
For competition use, the MON is commonly used to describe a fuel's anti-knocking capacity.
Higher octane levels give the fuel greater capacity to allow the engine to function under severe conditions that raise speeds (high rotation speed, high compression ratio).

OXYGEN CONTENT: Oxygenated compounds naturally contain high levels of octane and generally improve engine filling capacities thanks to the cooling effect on the admitted air flow (see definition). Others also have remarkable combustion speeds.

OLEFINS AND DI-OLEFINS: These unsaturated hydrocarbon compounds (double carbon-carbon bond) do not exist in natural form; they are found in petroleum fractions from cracking facilities.
Thanks to the reactivity of their double bond(s), these molecules have particularly high combustion speeds.

AIR/FUEL RATIO (stoichiometric ratio): This ratio characterizes the respective fuel and combustive (air intake) quantities necessary for ideal combustion in theory. In practice, most of the time, the engine tuner will make sure that the air/fuel ratio corresponds to a value between 1.10 and 1.20, or the theoretical value in relation to the actual value.