



ELF AVGAS 2T 96.7

“Leaded competition fuel for 2-stroke and 4-stroke engine”



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 and easy settings adjustments.

Use

- **ELF AVGAS 2T 96.7** is a leaded competition fuel.
- Thanks to the oxygenates that enhance its filling and its aromatic compounds with high energy content (NCV), **ELF AVGAS 2T 96.7** delivers high performance, particularly at high RPM.
- **ELF AVGAS 2T 96.7** has got high octane numbers, providing excellent knocking prevention.
- **ELF AVGAS 2T 96.7** has a low vapour pressure, which avoids the vapor-lock under hot weather conditions.
- Particularly suited to the following types of competition:
 - Moto-Cross
 - 2-stroke light Moto (up to 250 cm³)
 - Kart
 - Superkart
 - Speedboat races

Characteristics

| | | Typical data |
|--------------------------|-----------------|--------------|
| OCTANE NUMBER | RON | 118 to 120 |
| | MON | 102 |
| DENSITY | kg/l at 15°C | 0.780 |
| OXYGEN | % m/m | 2.4 |
| VAPOUR PRESSURE | Bar at 37.8°C | 0.220 |
| DISTILLATION (°C) | % vol. at 70°C | - |
| | % vol. at 100°C | 47 |
| BENZENE | % vol. | <0.1 |
| LEAD | g/liter | 0.5 |

Properties



“Leaded competition fuel for 2-stroke engine”

| Fuel characteristics | → | Technical gains | → | Engine benefits |
|---|---|---|---|--|
| Lead content significantly improving octane indexes | → | Anti-knock protection Allows engine to function at high compression ratio | → | Reliability and impeccable performance under severe conditions |
| selection of oxygenates | → | Volumetric efficiency Improvement | → | Spontaneous power gains (without special tuning) particularly at high RPM. |
| selection of aromatics | → | Improved energy content | → | |
| Low vapour pressure | → | Strongly limits the risk of vapor-lock | → | Constance in hot running |

Recommendation

- **ELF AVGAS 2T 96.7** 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 AVGAS 2T 96.7** is outside sports regulations and incompatible with most public driving regulations.
- **ELF AVGAS 2T 96.7** can be used in 2 Strokes mixture with the lubricant **ELF HTX 909** or with **ELF HTX 976**, for even more efficiency.
- For winter use, it is recommended to use leaded fuel **ELF Special Cross** which has better cold starting properties.
- For a fuller torque curve at medium speed, it is recommended to use leaded fuel **ELF Special Cross**.

Storage

To preserve its original properties and comply with the Health and Safety rules pertaining to fuels, **ELF AVGAS 2T 96.7** 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.

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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.

KNOCKING: Is the result of non controlled fuel combustion in the engine. Sometimes revealed by a characteristic 'pinking' noise, these detonation phenomena often damage the engine. There are two ways to prevent knocking: tuning the ignition timing and/or using a fuel with better anti-knocking characteristics (RON/MON and combustion speed).

CHARGE COOLING: The amount of energy needed to vaporize fuel depends on the latent vaporization heat. This phenomenon leads to cooling the intake air which in turn generates internal supercharging.

VAPOUR PRESSURE: Usually measured at 37.8°C (Reid vapour pressure), by bar (or Pascals), with its distillation curve, this dimension characterises a fuel's capacity to evaporate. This property comes into play when the petrol is mixed with the air intake and for cold engine starts. If the vapour pressure is too high, it can cause 'vapour lock'.

NET CALORIFIC VALUE (NCV): Calculated per litre or kilogramme, this energy represents the amount of heat released by the combustion of one litre (or kilogramme) of fuel. This value characterizes the fuel's energy content and can be considered on first estimate as the energy supplied to the engine for conversion into engine power. The higher the fuel NCV, the more the engine is likely to develop power.