

## TECHNICAL DATA SHEET

« Our formula use pure bases to guarantee naturally stable, long-lasting properties, consistent from one production batch to another. This search for constant and optimum quality ensures you obtain first class performance, in conformity with racing requirements. »

### USES

**ELF CORE 50** is compliant with the **2020 FIA Appendix J** regulation.

**ELF CORE 50** is an unleaded racing fuel designed to be used either in turbo-charged or naturally aspirated 4-stroke engines, as well as in 2-stroke engines.

**ELF CORE 50** is particularly suited as a control fuel in many championships thanks to its versatility. Validation tests were performed on many types of engines and have enabled the validation of this **ELF CORE 50** reference. Results show a general improvement in terms of power and knocking resistance compared to **ELF LM®S**.

### PROPERTIES

		Typical data	FIA / Appendix J regulation
Octane number	RON	101,7	95,0 – 102,0
	MON	88,5	85,0 - 90,0
Density at 15°C	kg/m <sup>3</sup>	748,0	720,0 – 785,0
Vapour Pressure at 37,8°C	kPa	60	< 80
Distillation	% v/v, at 100°C	70	46 – 72
Air Fuel Ratio at stœchiometry		13,88	
Oxygen content	% m/m	3,60	< 3,70
Sulphur content	mg/kg	< 5,0	< 10,0
Lead content	g/L	< 0,005	< 0,005
Benzene content	% v/v	≤ 1,0	< 1,0

## CHARACTERISTICS

CHARACTERISTICS	→	TECHNICAL ADVANTAGES	→	ENGINE BENEFITS
<b>Octane number</b> high limit of FIA regulations	→	Excellent resistance to knocking for controlled combustion	→	<b>Exceptional reliability under severe conditions (heat / humidity) validated on engine test bench</b>  Allows optimizing ignition timing
Maximized <b>Oxygen content</b>	→	Effect of natural <b>supercharging</b>  High latent vaporisation heat that facilitates mixture <b>cooling</b> before combustion	→	<b>Spontaneous power gains (without special tuning)</b>  Increases power by optimisation before ignition
Selection of <b>high energy content molecules</b>	→	<b>High combustion speeds</b> for controlled combustion	→	<b>Improves engine revving up</b>

## RECOMMANDATIONS

**ELF CORE 50** provides significant enhancement in power and reliability, even with no fine-tuning. However, engine mapping must be optimized (Air/Fuel ratio, Ignition Timing, ...) to obtain full benefit of this product.

**ELF CORE 50** for 2-stroke engine, can be mixed with the lubricant **ELF HTX 909** or with **ELF HTX 976+**, for even more efficiency.

**Conservation** : to maintain its original properties, in accordance with the Fuel Health and Safety regulations, **ELF CORE 50** should be handled and stored in the shade and sheltered from adverse weather conditions and must be perfectly sealed in its drum after each use, in order to avoid losing the lightest fractions.