

# 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 PERFO 100** is the fuel of the ELF racing range that has the best octane numbers technically possible for an unleaded and **non-oxygenated fuel**. This fuel can replace Avgas for race cars and historic cars.

ELF Research has combined its expertise with the will to push engines and technology beyond known limits, to develop an atypical fuel: **ELF PERFO 100**.

By selecting compounds with outstanding resistance to knocking, **ELF PERFO 100** allows with turbocharged, naturally aspirated, 4-stroke or 2-stroke engines, to operate in ranges hitherto inaccessible to other unleaded fuels without oxygenated compounds. Supercharging pressures and compression rates can be extended to the engine's mechanical limits.

#### **PROPERTIES**

		Typical data
Octane number	RON	108.5
	<b>AKI</b> (R+M)/2	103
Specific Gravity at 59°F		0.810
Vapour Pressure at 100°F	Psi	6.7
Distillation	% v/v, at 158°F	8
Distillation	% v/v, at 212°F	20
Stoichiometric A/F Ratio	/	13.9
Oxygen content	% m/m	< 0.2
Sulphur content	mg/kg	< 10.0
Lead content	g/L	< 0.005
Benzene content	% v/v	< 1.0
Color	Visual aspect	Limpid colourless





## **CHARACTERISTICS**

CHARACTERISTICS	$\rightarrow$	TECHNICAL ADVANTAGES	$\rightarrow$	ENGINE BENEFITS
Outstanding <b>Octane</b> for unleaded fuel without oxygenated compounds	$\rightarrow$	Excellent resistance of knocking for controlled combustion  Compression rates and supercharging pressure can be increased to the mechanical limits of the engine	$\rightarrow$	Maximum torque and power for high torque and extremely loaded engines
Strong <b>density</b>	$\rightarrow$	High energy content of fuel	$\rightarrow$	Significant improvement in filling compared to traditional fuel
Total absence of <b>alcohol</b> and <b>di-olefin</b>	$\rightarrow$	Any incompatibility with materials from the fuel system	$\rightarrow$	Any modification for the pieces from the fuel system is needed

## **RECOMMENDATIONS**

Engine mapping must be optimised (Air/Fuel ratio, ignition sequence...) to obtain full benefit from this product.

**ELF PERFO 100** can be mixed with the lubricant **ELF HTX 909** or with **ELF HTX 976+**, for even more efficiency.

If oxygenated compounds are allowed, we recommend to use **ELF PERFO 105**.

**Conservation**: to maintain its original properties, in accordance with the Fuel Health and Safety regulations, **ELF PERFO 100** 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.

#### **WARNING**

California's Proposition 65 - <a href="https://www.p65warnings.ca.gov/">https://www.p65warnings.ca.gov/</a>

