TotalEnergies

TECHNICAL DATA SHEET

«Our formulations, based on pure bases, guarantee stable, high-performance and homogeneous intrinsic properties over time. This quest for constant, optimum quality ensures that you get top-level performance at all times, in line with the demands of competition while being more respectful of the environment»

USES

EXCELLIUM Racing 100, the official fuel of the SRO GTWC and the world's best GT3 teams, complies with the FIA 2023 regulations - Appendix J - ARTICLE 252.

EXCELLIUM Racing 100 is a lead-free fuel, made from 100% sustainable materials*, suitable for both turbocharged and naturally-aspirated 4-stroke engines. It offers a perfect compromise between performance and reliability.

EXCELLIUM Racing 100 meets the technical challenge of offering the right formulation to meet the demands of endurance racing, where the engine is subjected to extreme operating conditions, while reducing greenhouse gas emissions by at least 65%**. The formulation base is made up of a hydrocarbon produced from bioethanol, itself partly produced in part from waste.

PROPERTIES

		Typical data
Octane number	**RON**	101.5
	MON	89.4
Density at 15°C	kg/m³	755,0
Vapour Pressure at 37,8°C	kPa	49
Distillation	**% v/v, at 100°C**	64,3
Air Fuel Ratio at stœchiometry	g air/1g fuel	13.7
Oxygen content	% m/m	6,00
Sulphur content	mg/kg	<3,0
Lead content	g/L	< 0,005
Benzene content	% v/v	0,2

*According to the mass balance system applied by a voluntary certification body approved by the European Union.
** Compared with its fossil equivalent. In line with the methodology set out in the European RED II Directive (2018/2001).

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CHARACTERISTICS

CHARACTERISTICS	→	TECHNICAL ADVANTAGES	→	ENGINE BENEFITS
Octane number high level	→	Excellent resistance to **knocking** for controlled combustion	→	**Exceptional reliability under severe conditions validated on engine test bench** **Allows optimizing ignition timing for more power**
Maximized **Oxygen content**	→	Effect of natural **supercharging** High latent vaporisation heat that facilitates mixture **cooling** before combustion	→	**Spontaneous power gains, increased by optimising the engine configuration.**
Vapour pressure optimized	→	Constant and better fuel **evaporation**	→	**Easy to start in all conditions**
Selection of **high energy content molecules**	→	**High combustion speeds** for controlled combustion	→	**Improves engine revving up**
100% certified* sustainable ingredients	→	A new generation of sustainable hydrocarbon fuel with no adverse effects on the engine.	→	**More respectful of the environment**

RECOMMANDATIONS

EXCELLIUM Racing 100 provides significant gains in power while maintaining engine reliability. To get the most out of this product, you need to optimize the engine mapping (Air/ Fuel ratio, Ignition timing, oil temperature, etc.).

Conservation: to maintain its original properties, in accordance with the Fuel Health and Safety regulations, EXCELLIUM Racing 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.

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