



RACING & **Fuels & Lubricants**
INTERNATIONAL PRODUCT GUIDE



A brand of **TOTAL**

EDITORIAL

KEY FIGURES

RACING Fuels & Lubricants



For more than 50 years, ELF has been a competitive, innovative and successful brand.

Thanks to years devoted to motorsport research and innovation, ELF products will allow you to achieve excellence.

Hence, the ELF Racing Fuels & Lubricants teams are pleased to present the ELF Racing Fuels and Lubricants guide.

Denis MARCEL
President



- ▶ A customer satisfaction rate of **97%**
- ▶ More than **50** years in motorsport business
- ▶ Available in **60** countries and on demand worldwide
- ▶ Every year ELF products are used in more than **300** international motorsport events

Coordination : TOTAL Additifs & Carburants Spéciaux
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RACING
FUELS

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RACING
LUBRICANTS

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#CLUBFRANCE ACTIVE

FOCAL
THE SPIRIT OF SPORT

elf

RACING

FUELS

ELF TURBO REF

COMPLIANT WITH 2018 FIA APPENDIX J

4-STROKE TURBO

- MAXIMUM PERFORMANCE
- HIGH PROTECTION AGAINST KNOCKING

OXYGEN CONTENT 3,60% m/m
RON 101,4
MON 86,5



ELF TURBO REF is the racing fuel reference on the market, optimized for turbocharged engines within the FIA regulation (Appendix J 2018), specifically designed for R5 engines.

With a choice of high energy content molecules allowing a high compression rate, **ELF TURBO REF** leads to an optimized cycle efficiency.

APPLICATION: WRC, R5, R4, R3, Gr A, Gr N,...

The new **RE**ference on the market!

ELF TURBO EVO

NO REGULATION

4-STROKE TURBO

- HIGH PERFORMANCE
- HIGH PROTECTION AGAINST KNOCKING

OXYGEN CONTENT 3,50% m/m
RON 101,7
MON 88,6



ELF TURBO EVO was designed for turbocharged engines and remains with its long-lasting good reputation.

With specific settings you can expect more power with **ELF PERFO 105**, out of any regulation.

APPLICATION: Rally, Circuit...

ELF ATMO RC

COMPLIANT WITH 2018 FIA APPENDIX J

4-STROKE ATMO

- HIGH COMBUSTION SPEED
- EFFECT OF NATURAL SUPERCHARGING

OXYGEN CONTENT 2,40% m/m
RON 98,0
MON 87,5



ELF ATMO RC provides maximum performance for naturally aspirated engines under FIA regulation (Appendix J 2018).

ELF ATMO RC offers a very high combustion speed. Specific oxygen compounds increase the filling effect of the engine for better performance.

APPLICATION: Naturally aspirated engines: S2000, S1600, R2, Gr A and Gr N...

ELF ATMO MAX

NO REGULATION

4-STROKE ATMO

- MAXIMUM PERFORMANCE
- HIGH COMBUSTION SPEED

OXYGEN CONTENT 3,60% m/m
RON 101,6
MON 86,9



ELF ATMO MAX is formulated with specific olefin compounds, which generate very high combustion speed. This racing fuel delivers excellent engine acceleration and power output.

ELF ATMO MAX is compliant with AMA® regulation and very much appreciated by US MX top teams.

It can also be used in former F1 cars.

APPLICATION: Former F1, US MX...

Used by **professional teams** on US market

ELF MOTO 4S GP

COMPLIANT WITH FIM REGULATION

4-STROKE  ATMO

- MAXIMUM PERFORMANCE
- HIGH COMBUSTION SPEED

OXYGEN CONTENT 2,60% m/m
RON 100,0
MON 88,0



ELF MOTO 4S GP is directly based on ELF's expertise in MotoGP™ and offers maximum performance within the limits of FIM regulation.

Its specific olefin content gives a very high combustion speed that is particularly efficient at high rpm.

APPLICATION: Circuit, Motocross, MotoGP™, WSBK™, MX GP™...

Regularly wins WSBK™ and MX races

ELF MOTO 4T MAX

COMPLIANT WITH FIM REGULATION

4-STROKE  ATMO

- HIGH PERFORMANCE
- EASY ENGINE MAPPING

OXYGEN CONTENT 2,60% m/m
RON 101,7
MON 89,6



ELF MOTO 4T MAX provides an excellent balance between performance gains and ease of tuning.

This racing fuel is recommended for racers seeking performance gains with limited mapping technology compared to factories or engine manufacturers.

APPLICATION: Circuit, SBK™, MX...

ELF MOTO WSBK FIM

COMPLIANT WITH FIM REGULATION

4-STROKE  ATMO

- QUALITY CONSISTENCY
- COST EFFECTIVE

OXYGEN CONTENT 2,50% m/m
RON 101,7
MON 89,5



ELF WSBK FIM is the cost effective FIM compliant racing fuel for bikers.

Compared to pump fuels, its consistency guarantees stable tuning and performance gains at an affordable price.

APPLICATION: Circuit, SBK™, MX...





ELF MITS 46

COMPLIANT WITH FIM REGULATION

2-STROKE

ATMO

- MAXIMUM PERFORMANCE
- HIGH COMBUSTION SPEED

OXYGEN CONTENT 2,60% m/m
RON 101,5
MON 89,5



ELF MITS 46 is the first choice for 2-strokes karting and motorbikes racers. Made for specialists, it requires fine tuning of the engine.

This fuel is the outcome of advanced research based on ELF's expertise in former 2-strokes moto Grand Prix.

Owing to its specific formula, **ELF MITS 46** offers exceptional anti-knock protection and enhances combustion at high speeds.

APPLICATION: Karting, MX...



Should be combined with either **ELF HTX 909** or **ELF HTX 976+** racing lubricants to get the best out of the engine



ELF LM[®]S

COMPLIANT WITH 2018 FIA APPENDIX J
& WITH FIM REGULATION

2 & 4-STROKE

ATMO & TURBO

- PROTECTION AGAINST KNOCKING
- EASY ENGINE MAPPING

OXYGEN CONTENT 2,60% m/m
RON 101,7
MON 89,7



ELF LM[®]S is a multipurpose, cost effective racing fuel. It can be used in 2-stroke and 4-stroke engines, turbo-charged and naturally aspirated. Easy to tune, this fuel is highly appreciated for its resistance to knocking.

ELF LM[®]S is an excellent control fuel that is widely used in major championships like Blancpain series (Endurance and Sprint), National series, Superkart, etc...

APPLICATION: Control fuel, Circuit...

LMS[®] has become the **official control fuel** of Blancpain GT series in 2017, 2018 & 2019



RECOMMENDED FOR CONTROL FUEL

ELF WRF

COMPLIANT WITH 2018 FIA APPENDIX J

4-STROKE

ATMO & TURBO

- QUALITY CONSISTENCY
- COST EFFECTIVE

OXYGEN CONTENT 2,50% m/m
RON 101,4
MON 89,4



ELFWRF is the right choice for customers with limited budget and looking for a FIA regulated racing fuel. Its consistent formulation ensures to get more performances than pump fuel, with no fine tuning.

APPLICATION: Rally, Circuit...

ELF PERFO 105

NO REGULATION

4-STROKE

TURBO

- OUTSTANDING PERFORMANCE
- HIGH OXYGEN CONTENT
- HIGHEST OCTANE NUMBER

OXYGEN CONTENT 16,50% m/m
RON > 110,0 AKI 105,0
MON > 97,0

ELF PERFO 105 is the fuel designed to provide the maximum octane number reachable for an unleaded racing fuel. Unfettered by technical regulations, it has been developed without any compromise. The performance results are spectacular for a large range of heavy loaded engines (up to 10% measured against competitors' unleaded fuel).

ELF PERFO 105 has particularly high octane numbers (RON>110) and oxygen compound content, which require specific mapping and increased injection flow rate. This fuel is much appreciated in the Drag racing community.

APPLICATION: Rally, Hill climb, Drag racing...

Powered the Peugeot 208 T16 to set record at Pikes Peak international hill climb, or the Subaru® WRX STI at Isle of Man TT

+

ELF PERFO 100

NO REGULATION

4-STROKE

TURBO

- HIGH PERFORMANCE
- WITHOUT OXYGEN
- HIGH OCTANE NUMBER

OXYGEN CONTENT 0,00% m/m
RON > 107,0
MON > 96,0

ELF PERFO 100 is an oxygen-free racing fuel with very high octane number (RON>107). Not compliant with FIA regulation, the performance gain measured on turbo engines is considerable.

APPLICATION: Global Rally Cross...

ELF E85

NO REGULATION

2 & 4-STROKE

ATMO & TURBO

- QUALITY CONSISTENCY
- HIGH ENERGETIC CONTENT

OXYGEN CONTENT 30,00% m/m
RON > 104,0
MON > 89,0

ELF E85 is a racing fuel which formulation is based on 85% oxygen compound content. In addition to the usual benefits of E85 (high oxygen content and octane number), this fuel offers many advantages over E85 from the fuel station:

- selection of high energy content molecules to improve power output
- consistency of oxygen content and vapour pressure for stable mapping

To ensure best performance with **ELF E85**, fuel flow calibration must be carefully set.

APPLICATION: E85...

Be aware of material compatibility with this type of fuel

+

ELF RACE 102

NO REGULATION

2 & 4-STROKE

ATMO & TURBO

- PROTECTION AGAINST KNOCKING
- CAN BE USED WITH ORIGINAL ENGINE MAPPING
- COST EFFECTIVE

OXYGEN CONTENT 3,70% m/m
RON > 102,0
MON > 88,0

ELF RACE 102 formulation guarantees a fuel with an octane number greater than 102 and with properties that remain stable over time. Developed for all types of racing, this fuel meets the economic expectations of unleaded 98 fuel users, while providing the quality and performance of a race fuel.

APPLICATION: Multipurpose...

Race technology you can't get at the fuel station: a major success since its launch in 2015!

+

ELF ATMO VINT

NO REGULATION

4-STROKE

ATMO

- HIGH OCTANE NUMBER
- HIGH COMBUSTION SPEED
- VALVE SEAT PROTECTION

OXYGEN CONTENT 1,60% m/m
RON 104,5
MON 91,7

HISTORIC
VEHICLE

ELF ATMO VINT is designed for old vehicles with engines previously running on leaded gasoline.

ELF ATMO VINT offers high combustion speed and valve seat protection.

APPLICATION: Old engines previously running on leaded gasoline...

+

Modern fuel for old fashioned vehicle

ELF AVSP 11 VS

NO REGULATION

2 & 4-STROKE

ATMO

- HIGH OCTANE NUMBER
- VALVE SEAT PROTECTION

OXYGEN CONTENT 2,60% m/m
RON > 107,0
MON > 95,0

HISTORIC
VEHICLE

ELF AVSP 11 VS is an unleaded fuel version inspired by Avgas and also provides valve seat protection.

Thanks to its particularly high octane levels, **ELF AVSP 11 VS** offers excellent knocking resistance. **ELF AVSP 11 VS** optimises the operation of engines previously running on high-octane leaded gasoline such as Avgas.

APPLICATION: Old engines previously running on leaded gasoline...

+

The alternative to airfield Avgas





PRODUCT GUIDE

RACING FUELS

ENGINE TYPE	REGULATION	RACING FUEL	COMMENTS
TURBO	2018 FIA Appendix J	ELF TURBO REF	Turbo reference (FIA)
		ELF LMS	Multipurpose
		ELF WRF	Multipurpose
	No regulation	ELF PERFO 105	Turbo reference (NO FIA), high octane
		ELF TURBO EVO	Turbo
		ELF PERFO 100	0% oxygen
		ELF E85	Racing E85
		ELF RACE 102	Multipurpose cost effective
ATMO	2018 FIA Appendix J	ELF ATMO RC	Atmo reference (FIA)
		ELF LMS	Multipurpose
		ELF WRF	Multipurpose
	FIM	ELF MOTO 4S GP	Moto reference (FIM)
		ELF MOTO 4T MAX	Multipurpose
		ELF WSBK FIM	Multipurpose
	No regulation	ELF ATMO MAX	Atmo reference (NO FIA / NO FIM)
		ELF E85	Racing E85
		ELF RACE 102	Multipurpose cost effective
2-STROKE	FIM	ELF MITS 46	Fine-tuning
CONTROL FUEL	2018 FIA Appendix J	ELF LMS	Multipurpose
		ELF WRF	Multipurpose
HISTORIC FUELS	No regulation	ELF ATMO VINT	Adapted to engines using leaded gasoline
		ELF AVSP 11 VS	Adapted to engines using leaded gasoline
DIESEL*	2018 FIA Appendix J	GRT3	Racing diesel (FIA)
	No regulation	C-140	Racing diesel (high cetane)

Our formulas 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.

* Contact us for any further information about diesel racing fuels



RACING

LUBRICANTS





ELF HTX 4-STROKE ENGINE RANGE FOR CARS

100% SYNTHETIC



ELF HTX lubricants provides optimum engine protection and performances thanks to the combination of advanced chemical components carefully selected after years of experience in developing successful racing products. **ELF HTX** lubricants are validated through severe engine testing in partnership with experienced racing organizations and teams.

The polymers used in **ELF HTX** lubricants are specially designed to optimize oil film thickness within lubricated contacts in order to reduce friction losses and maintain engine reliability.

ELF HTX technology is the perfect balance between the performance and the engine protection.

ELF HTX 830 0W-30



PERFORMANCE
ENGINE PROTECTION ●●●●●●
●●●●○○

ELF HTX 830 is designed for maximal engine performance in short and medium length races, and offers an optimal level of protection, reducing wear on moving mechanical parts.

ELF HTX 850 5W-50



PERFORMANCE
ENGINE PROTECTION ●●●●●●
●●●●●●

ELF HTX 850 offers high engine protection for outstanding reliability and maintain engine performance under prolonged heavy loading.

ELF HTX 840 0W-40



PERFORMANCE
ENGINE PROTECTION ●●●●●●
●●●●●●

ELF HTX 840 is designed for engine performance in short and medium length races, and offers a high level of protection.

It is the excellent compromise between engine performance and protection.

ELF HTX 860 10W-60



PERFORMANCE
ENGINE PROTECTION ●●●●●●
●●●●●●

ELF HTX 860 offers the maximal engine protection for outstanding reliability and maintain engine performance under prolonged heavy loading.



ELF HTX 4-STROKE ENGINE RANGE FOR BIKES

100% SYNTHETIC



ELF HTX 38** product range is specially designed for wet clutch motorcycle applications with combined engine and transmission.

It contains the latest additive technology to protect gears for scuffing and pitting wear. It meets the requirement of the JASO standards to avoid slippage in wet clutch applications.

Those lubricants are directly based on ELF's experience in competition. They are especially designed to obtain maximum engine power.

ELF HTX 3820 0W-20

PERFORMANCE ●●●●●●
ENGINE PROTECTION ●●●●○○

Due to its ultra fluid grade, **ELF HTX 3820** is designed for short runs such as qualifying sessions or short races.



ELF HTX 3830 0W-30

PERFORMANCE ●●●●●○
ENGINE PROTECTION ●●●●●○

ELF HTX 3830 is an excellent compromise between performance and reliability for 4-strokes motorcycles.



ELF HTX 3835 5W-30

PERFORMANCE ●●●●●○
ENGINE PROTECTION ●●●●●●

ELF HTX 3835 5W30 offers the maximum engine protection for outstanding reliability and maintain engine performance under prolonged heavy loading for 4-strokes motorcycles.





ELF HTX 2-STROKE



The **ELF HTX 9**** has a remarkable thermal stability and antioxidant properties, it offers exceptional resistance at high running temperatures.

In addition to providing a great protection against seizing, those racing lubricants bring top performances.

ELF HTX 9** is a reference range of product in the Karting and Motorcycle world! Those lubricants are specially developed for 2-stroke racing engines used in a blend with leaded or unleaded fuel. The perfect match with ELF racing fuels.

ELF HTX 909 SAE 50



PERFORMANCE
ENGINE PROTECTION



SYNTHETIC WITH RICIN

Based on ricin oil technology, **ELF HTX 909** provides exceptional protection against seizing. It is recommended for engines running at very high speeds (up to 25,000 rpm), especially for Karts and Motocross racing.

ELF HTX 976+ SAE 50



PERFORMANCE
ENGINE PROTECTION



100% SYNTHETIC

ELF HTX 976+ provides optimum protection against gripping and pinking.



ELF HTX TRANSMISSION

100% SYNTHETIC



ELF HTX lubricants provides optimum transmission protection and performances thanks to the combination of advanced chemical components carefully selected after years of experience in developing successful racing products. **ELF HTX** lubricants are validated through severe testing in partnership with experienced racing organizations and teams.

ELF HTX 725 75W-80



PERFORMANCE
TRANSMISSION PROTECTION



ELF HTX 725 is designed to restrict transmission power loss to the maximum. Its performance has been well validated in GP2 and GP3, as well as Formula Renault.

ELF HTX 725 is ideal for short and medium length races.

ELF HTX 735 75W-90



PERFORMANCE
TRANSMISSION PROTECTION



ELF HTX 735 is an excellent compromise between performance and reliability.

ELF HTX 740 75W



PERFORMANCE
TRANSMISSION PROTECTION



ELF HTX 740 ensures ultra-quick speed changing in extreme conditions. The reference is perfectly suited to engines with separate transmissions.

ELF HTX 755 80W-140



PERFORMANCE
TRANSMISSION PROTECTION



Especially suited to heavy load and endurance use, **ELF HTX 755** is recommended for lubricating differentials, axles and transmissions for long duration runs.

ELF HTX 320 DOT 4



BRAKE FLUID

➤ EXTREME TEMPERATURE

100% SYNTHETIC



ELF HTX 320 is a 100% synthetic DOT 4 brake fluid based on glycol ether technology. It features a particularly high boiling point, guaranteeing its suitability for use in the harshest conditions.

It is compatible with all types of elastomer used in braking systems.

HTX 320 DOT 4 is designed for motorsport, specially formulated to provide the best performance in the most challenging conditions encountered in car, motorcycle and go-kart racing.

TOTAL HTX COOLANT CI



COOLANT

- ANTI-CORROSION PROTECTION AND ANTI-CAVITATION
- NO DEPOSIT FORMATION
- BETTER STABILITY IN TIME
- INCREASED HEAT EXCHANGES

100% SYNTHETIC



Approved by Peugeot Sport and Citroën Racing, **TOTAL HTX COOLANT CI** (Corrosion Inhibitor) provides optimum protection against corrosion and cavitation in the cooling system of your engine. It meets the most extreme requirements of motorsport.

PRODUCT GUIDE RACING LUBRICANTS

CATEGORY		THE RANGE		
4-STROKE		HTX 830	0W-30	5L
		HTX 840	0W-40	5L
		HTX 850	5W-50	5L
		HTX 860	10W-60	5L
		HTX 3820	0W-20	1L
		HTX 3830	0W-30	1L
		HTX 3835	5W-30	1L
2-STROKE		HTX 909	SAE 50	1L
		HTX 976+	SAE 50	1L
TRANSMISSION		HTX 725	75W-80	5L
		HTX 735	75W-90	5L
		HTX 740	75W	1L
		HTX 755	80W-140	5L
BRAKE FLUID		HTX 320	DOT 4	0,5L
COOLANT		HTX COOLANT CI		5L