

LAUNCHER Extreme Racing Fully Synthetic Motor Oil series are formulated to outperform conventional oils and exceed API baseline performance testing standards on wear protection, engine sludge protection, piston cleanliness, low temperature performance, and oil loss prevention in gasoline / diesel engines and hybrid vehicles. LAUNCHER Motor Oil has been recommended and tested on new engines and high mileage vehicles.



### APPLICATIONS

- Turbocharged gasoline direct injection, conventional gasoline-fueled racing and sport utility vehicles, including gasoline-electric hybrids, especially when operating under severe conditions.
- Four-stroke cycle gasoline engines in other mobile or stationary equipment.

### PERFORMANCE FEATURES AND BENEFITS

- Exceeds ILSAC GF-6 requirements for new cars under warranty.
- Helps protect against low speed pre-ignition (LSPI) in turbocharged gasoline direct injection engines (TGDI).
- Excellent resistance to viscosity and thermal breakdown at high temperatures.
- Friction-modified for improved fuel economy.
- Protects against wear and bearing corrosion.
- Protects against sludge and varnish formation.
- Highly resistant to foaming
- Low volatility for reduced oil consumption.
- Formulated for use in vehicles operating on ethanol-containing fuels up to E85.
- Formulated to protect turbochargers and emission control system catalysts.

### RECOMMENDATIONS / SPECIFICATIONS

#### MEETS OR EXCEEDS :

API SP, SN AND ALL PREVIOUS CATEGORIES, ILSAC GF-6A , ACEA C3, CHRYSLER: MS-6395; FORD: WSS-M2C947-B1, BMW LL04, MB 229.51, VW 504.00507, PORSCHE C30. GM DEX0S1 ( GEN 3), LANDROVER STJLR.03.5003

### TYPICAL TECHNICAL PROPERTIES

	5W-50	10W-60
Viscosity Grade	5W-50	10W-60
PRODUCT CODE	LMO5W50FPW	LMO10W60FPW
Density at 15°C, g/ml, ASTM D4052	0.847	0.849
COLOR, ASTM 6045	3.0	3.0
Cold Cranking Viscosity (CCS), mPa s, ASTM D5293	5200 @-30°C	5900@-25°C
Kinematic Viscosity at 40°C, mm <sup>2</sup> /s, ASTM D445	86.22	147.7
Kinematic Viscosity at 100°C, mm <sup>2</sup> /s, ASTM D445	18.4	22.85
Viscosity Index, ASTM D2270	177	184
Flash Point(COC), °C, ASTM D92	230	230
Pour Point, °C, ASTM D97	-45	-39
Total Base Number, mg KOH/g, ASTM D2896	7.0	7.0
Sulfated Ash, wt%, ASTM D 874	0.8	0.8
High-Temperature/High-Shear Viscosity @ 150°C, cP, ASTM D4683	3.9	4.9
Phosphorus, wt %, ASTM D5185	0.077	0.077
Zinc, wt %, ASTM D5185	0.085	0.085

Note: These characteristics are typical of current production. While future production will conform to LAUNCHER'S specification, variations in these characteristics may occur.



Packing : 1L | 4L | 5L | 208L/Drum

Version : LL/TDS/ER/FS/V1/02-01-2023

Health and Safety: This lubricant, when used in accordance with our recommendations and for the application for which it is intended, does not constitute any special hazard. A safety data file conforming to the requirements of current EC legislation is available from your local trade consultant