

LAUNCHER High Performance Multigrade Motor Oils are formulated from high quality base oils combined with modern performance additives to help provide long engine life and protect critical engine parts from lubricant related failures for up to 5,000 miles, providing wide temperature range engine protection. LAUNCHER Motor Oil has been recommended and tested on new engines and high milage vehicles.



APPLICATIONS

LAUNCHER High Performance Multigrade Motor Oils are suitable for petrol engines fitted with conventional carburetors and for naturally aspirated or turbo-charged indirect injection diesel engines (passenger cars and light industrial) vehicles. It could be used in all operating conditions (city traffic, road, motorways), whatever the season.

PERFORMANCE FEATURES AND BENEFITS

- Superior cleansing technology to help stop dirt and sludge build up.
- Superior engine wear protection.
- Superior engine protection during start up, warm-up and normal driving conditions.
- Reduced high temperature engine deposits
- Long-term wear protection of engine parts (distribution, ring, plunger and liner) increasing engine life.

RECOMMENDATIONS / SPECIFICATIONS

MEETS OR EXCEEDS :

API SN/CF , SM/CF , SL/CF , SJ/CF, SG/CF, SG/CD , ACEA: A3/B3, A2/B2, JASO MA2 MA/, JASO MB FORD, GM, PSA, BMW, VW,AUDI AND MERCEDES-BENZ

PROPERTIES

LAUNCHER High Performance Multigrade Motor Oils are specially formulated using extra cleaning additive to help protect against sludge and engine deposits. Additionally, pour point depressants and a viscosity index (VI) improvers are included to provide the optimum fluidity and viscosity across a broad range of temperatures and to provide extra protection against the harmful effects of stop-and-go driving and high and low temperature engine operation. It contains a double layer of engine wear protection with full zinc formulation.

- Excellent thermal and oxidation stability.
- Can be used in both Diesel & LPG engines.
- Reduces wear due to advanced base oils.
- Meets the most demanding car manufacturer's requirements.
- Helps clean and protect older engines.
- Ensures the important engine seals stay soft and pliable to minimize oil leakage.

TYPICAL TECHNICAL PROPERTIES

| Viscosity Grade | 10W-30 | 10W-40 | 15W-40 | 20W-50 |
|-------------------------------------------------------------|------------|------------|------------|------------|
| PRODUCT CODE | LMO10W30CN | LMO10W40CN | LMO15W40CN | LMO20W50CN |
| Density at 15°C, g/ml, ASTM D4052 | 0.886 | 0.887 | 0.889 | 0.893 |
| Cold Cranking Viscosity(CCS), mPa s, ASTM D5293 | 6300@-25°C | 6740@-25°C | 6800@-20°C | 8000@-15°C |
| Kinematic Viscosity at 40°C, mm ² /s, ASTM D445 | 85.77 | 100.22 | 106.75 | 176.76 |
| Kinematic Viscosity at 100°C, mm ² /s, ASTM D445 | 11.84 | 13.6 | 14.77 | 19.51 |
| Viscosity Index, ASTM D2270 | 130 | 138 | 143 | 127 |
| Flash Point (COC), °C, ASTM D92 | 228 | 228 | 228 | 238 |
| Pour Point, °C, ASTM D97 | -30 | -30 | -27 | -24 |
| Total Base Number, mg KOH/g, ASTM D2896 | 10.2 | 10.2 | 10.2 | 10.2 |

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/CEO/MG/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