

4288.17

Golden Diesel EVO

SAE 10W-40

Semi-synthetic multigrade lubricant with **MID S.A.P.S.** technology (medium content of Sulphated Ash, Phosphorus, Sulphur) for all on/off road Heavy Duty Diesel engines. Zinc content higher than 900ppm.

PAKELO GOLDEN DIESEL EVO SAE 10W/40 is a **semi-synthetic** multigrade lubricant, formulated with Group II mineral base-stocks and selected synthetic base-stocks, developed for HD (Heavy Duty) Diesel on/off road engines.

Thanks to its particular additive package and to the blend of synthetic and mineral Group II base-stocks, better than traditional Group I mineral base-stocks, PAKELO GOLDEN DIESEL EVO SAE 10W/40 satisfies the severe requests of American Specification **API CK-4** (and the previous ones) and European Specifications **ACEA E9 / E7** and the recent OEMs Specifications such as **MB 228.31**, **Volvo VDS-4.5** and **Caterpillar ECF-3** both for trucks and earth moving machines.

MID S.A.P.S. formulation with low content of **Sulfur** (present in the additives and in solvent neutral base stocks), **Phosphorus** (generally bound to Zinc in order to give greater anti-oxidative and anti-wear protection) and metals that can lead to **Sulphated Ash** (mostly from detergent additives), are compatible with different combustion technologies and exhaust gas after-treatment devices (EGR, SCR, DPF, etc.) for emissions reduction.

Lubricants that meet the API CK-4 and ACEA E9 / E7 specifications provide better anti-oxidative and anti-wear properties, less viscosity loss in service, less deposits on pistons, and better soot thickening and corrosion control.

The particular formula of PAKELO GOLDEN DIESEL EVO SAE 10W/40 thus provides the following properties:

- **MID S.A.P.S.** (medium content of Sulphated Ash, Phosphorus and Sulphur) **technology**;
- **suitable for long drains**: it enables *Extended Service Interval*;
- **excellent low temperature properties**: easy start-ups at very low temperatures to guarantee the lubricant action for all the engine moving parts right from the first working periods and to reduce to the minimum the hazards of wear
- **higher thermal-oxidative stability** also thanks to the base stocks used to formulate the product;
- **HT-HS** (High Temperature, High Shear) **value optimized** for severe and specific needs of modern Heavy Duty Diesel engines;
- **low formation of lacquers and varnishes** at low temperatures and in particular during stop-and-go service;
- **low volatility** of the product results into a very significant reduction of oil losses due to evaporation;
- **very high detergent properties** that guarantee cleanness performance and long drain intervals;
- **excellent dispersant properties** that guarantee a great control of sludge and oil thickening phenomena also in case of high presence of soot and deposits;
- **excellent wear control** in every working and ambient temperatures;
- **good compatibility** with gaskets;
- **excellent pumpability** at low temperatures of used oil too.

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Application fields

PAKELO GOLDEN DIESEL EVO SAE 10W/40 is a high performance lubricant recommended for all HD (Heavy Duty) Diesel on/off road engines.

The product satisfies the main OEMs' performance levels.

Please also follow recommended oil drain intervals to obtain maximum engine life.

Performance levels

API CK-4 / CJ-4 / CI-4 Plus / CI-4 / CH-4, **ACEA** E7 / E9, **MB-Approval** 228.31, **Volvo** VDS-4.5, **Renault Trucks** RLD-4, **MTU** Type 2.1, **Mack** EOS-4.5, **Caterpillar** ECF-3, **Cummins** CES 20.086, **Detroit Diesel** DFS93K222, **Deutz** DQC III-10LA.

Chemical-Physical Characteristics

Golden Diesel EVO	Method analysis	Unit measure	Value SAE 10W-40
Density at 15°C	ASTM D1298	kg/l	0,866
Kinematic Viscosity at 40°C	ASTM D445	cSt	102,5
Kinematic Viscosity at 100°C	ASTM D445	cSt	15,2
Viscosity Index	ASTM D2270	-	156
C.C.S. Viscosity at -25°C	ASTM D5293	cP	5.900
HT-HS Viscosity at 150°C / 10 ⁶ s ⁻¹	ASTM D4683	cP	4,10
T.B.N. (Total Base Number)	ASTM D2896	mg(KOH)/g	10
Sulphated Ash	ASTM D874	% (w/w)	1,0
Typical phosphorus content	ASTM D5185	ppm	1150
Flash Point (C.O.C.)	ASTM D92	°C	215
Pour Point	ASTM D97	°C	-34
Noack evaporability test	ASTM D5800	% (w/w)	12

The data just above refer to average values and must not be understood as guaranteed characteristics.

This Technical Data Sheet has been carefully checked to guarantee complete and precise information. However, we do not take any responsibility in case of damages caused by any mistakes or omissions. Due to continual product research and development, the information contained herein is subject to change without notification.