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Goldengear LD Plus

SAE 75W-80

Fully synthetic lubricant for manual transmissions, used as well in association with interarders, working even under heavy duty conditions.

PAKELO GOLDENGEAR LD PLUS SAE 75W-80 is a high performance fully synthetic lubricant for manual transmissions used as well in association with interarders, also working even under heavy duty conditions.

The product, thanks to the well selected synthetic base stocks and additive package, provides the following properties:

- high anti-wear and EP (Extreme Pressure) capabilities, protecting components against wear under the conditions of normal and high loads and torques;
- very high shear stability: viscosity index improvers guarantee high resistance to mechanical stress and, during service, allow to maintain viscosities almost equivalent to new lubricant;
- very good thermal stability of the synthetic base oils used which allows the product to be used under heavy conditions and at high temperatures;
- very good oxidative stability that prevents oil thickening, formation of laquers, sludge and deposits and guarantees better cleanness of internal surfaces of transmissions;
- high anti-rust and anti-corrosion properties;
- great anti-foam characteristics that prevent oil film breakdown and maintain the protective oil film, enabling constant lubrication of mechanical components;
- good compatibility with all materials used in synchronizers: this helps the product to maintain a perfect gear shift during all drain interval;
- good compatibility with commonly used seals preventing oil leakages even at high working temperatures;
- excellent fluency at low temperatures (SAE 75W) enabling to improve significantly shifting performance during start-ups;
- "fuel-economy" properties which allow the product, even if compared to similar viscosity lubricants, to lower end users' running costs and to be less harmful to the environment.

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Application fields

PAKELO GOLDENGear LD PLUS SAE 75W-80 has been developed for synchronized manual transmissions and mechanical transmission even working under heavy duty conditions of heavy duty vehicles.

The product can operate in manual transmissions, in combination with retarders or intarders, and it can be adopted to extend oil drain intervals up to 300.000km (with respect of Constructors' recommendations).

Thanks to its properties PAKELo GOLDENGear LD PLUS SAE 75W-80 shows a multi-vehicle versatility guaranteeing at the same time extended drain intervals and "fuel-economy" properties.

The choice of suitable viscosity grades must be made in compliance with Recommendations from Constructors and according to ambient temperatures.

Performance levels

API GL-4, DAF, Eaton Europe (300.000km or 3 years), **Iveco, MAN** 341 Type Z-4, **Renault** (accord. with note technique B0032/2 annex 3), **Volvo** 97307, **ZF** TE-ML 01L / 02L / 08 / 13 / 16K / 24A.

Approvals

ZF TE-ML 01L / 02L / 16K (App. ZF003619).

Chemical-Physical Characteristics

Goldengear LD Plus	Method analysis	Unit measure	Value SAE 75W-80
Density at 15°C	ASTM D1298	kg/l	0,859
Kinematic Viscosity at 40°C	ASTM D445	cSt	56,9
Kinematic Viscosity at 100°C	ASTM D445	cSt	9,6
Viscosity Index	ASTM D2270	-	153
Brookfield Viscosity at -40°C	ASTM D2983	cP	80.000
KRL Shear Stability (Stage C - 20 Hour) at 100°C	CEC L45A99	%(cSt/cSt)	4,2
Kinematic Viscosity at 100°C after KRL (Stage C)	ASTM D445	cSt	9,2
KRL Shear Stability (Modified - 100 Hours) at 100°C	CEC L45A99	%(cSt/cSt)	7,3
Kinematic Viscosity at 100°C after KRL (100h)	ASTM D445	cSt	8,9
Test FZG (A/8,3/90) Failure Load Stage	DIN51354-2		> 12
Flash Point (C.O.C.)	ASTM D92	°C	> 220
Pour Point	ASTM D97	°C	-39

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.