



NAVIGATOR LL

Description

Long-lasting oil for differentials and manual gearboxes that require the GL-5 quality level. Specially recommended for commercial and civil-works vehicles working under harsh conditions and requiring a high-performance lubricant. Complies with current manufacturers' regulations that demand oils with long drainage periods, enabling double or triple the interval between oil changes in comparison with conventional mineral oils.

Properties

- Allows long change intervals, in accordance with manufacturers' recommendations.
- Excellent compatibility with seals and gaskets, helping to prevent leaks and the formation of deposits.
- High load-bearing capacity in gear assemblies, preventing the mechanical-component failures that are typical in the use of commercial and civil-works vehicles.
- Better thermal stability and resistance to oxidation than conventional mineral oils, offering greater protection to metal components and enabling longer intervals between oil changes.
- Temperature-stable viscosity, allowing for good fluidity at low temperatures and ensuring a protective film under all circumstances.

Quality levels, approvals and recommendations

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| • DAIMLER TRUCK: DTFR 12B110* (80W-90) | • MAN: 342 M3 / 341 GA1* (80W-90) |
| • MB: 235.20* (80W-90) | • SCANIA STO 1:0 for differentials* (85W-140) |
| • SCANIA STO 1:0 for gearboxes* (80W-90, 85W-140) | • ZF TE-ML: 05A, 12L, 12M, 16B, 17B, 19B, 21A* (80W-90) |
| • ZF TE-ML: 05A, 12M, 16D, 21A* (85W-140) | • ZF TE-ML: 07A, 08* (80W-90) |
| • API: GL-5, MT-1 (80W-90, 85W-140) | • ARVIN MERITOR: O76-A (85W-140) |
| • ARVIN MERITOR: O76-D (80W-90) | • DAF: API GL-5 (80W-90, 85W-140) |
| • IVECO: 10-1805 Class RAM 2 (85W-140) | • IVECO: 18-1805 (80W-90) |
| • MACK: GO-J (80W-90, 85W-140) | • RENAULT: Axle (80W-90) |
| • SAE: J 2360 (80W-90, 85W-140) | • VOLVO: 97310 (80W-90, 85W-140) |

*Formal approval



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Technical specifications

	UNIT	METHOD	VALUE	
SAE Grade			80W-90	85W-140
Density at 15 °C	g/cm3	ASTM D4052	0.900	0,909
Kinematic viscosity at 100 °C	cSt	ASTM D445	14.25	24.55
Kinematic viscosity at 40 °C	cSt	ASTM D445	135	320
Brookfield Viscosity at -26 °C	cP	ASTM D2983	<150,000	-
Brookfield Viscosity at -12 °C	cP	ASTM D2983	-	<150,000
Viscosity index	-	ASTM D2270	102	98
Flash point, open cup	°C	ASTM D92	204	218
Pour point	°C	ASTM D97	<-30	<-12

The above mentioned characteristics are typical values and should not be considered product specifications.