



NAVIGATOR LL 80W-90, 85W-140

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

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

*Formal approval

Technical specifications

	UNIT	METHOD	VALUE	
SAE Grade			80W-90	85W-140
Density at 15 °C	g/mL	ASTM D4052	0.901	0.914
Viscosity at 100 °C	cSt	ASTM D445	14.25	24.55
Viscosity at 40 °C	cSt	ASTM D445	135	320
Viscosity at -26 °C	cP	ASTM D2983	<150,000	-
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.