

ALPINE® Monograde

High-performance monograde engine oil

Properties

- High-performance monograde engine oil
- High viscosity index
- High dirt holding capacity
- Stable lubricant film
- Excellent cleaning power
- High thermal stability
- Excellent wear and corrosion protection

Application notes

ALPINE Monograde is suitable for use in diesel and gasoline engines with and without turbocharging, such as

- Commercial vehicle diesel engines
- Stationary diesel engines
- Construction machinery and agricultural aggregates

In addition, it is used in hydraulic systems, hydraulic clutches, transmissions, torque converters and retarders, if an appropriate engine oil

is prescribed by the manufacturer .

Service description

Specifications:

- ACEA E2
- API SJ/CF-4

Recommendations*:

- MB 227.0
- MAN M 270
- Allison C-4
- Caterpillar TO-2
- MIL-L-2104 E
- MIL-L-46152 E
- MTU oil type 1

TYPICAL PARAMETERS	METHODS	UNITS	ALPINE Monograde			
			10W	20W-20	30	40
SAE class	DIN 51 511	-	10W	20W-20	30	40
Density at 15°C	DIN 51 757	g/cm ³	0.883	0.888	0.895	0.898
Viscosity at - 15°C	DIN 51 377	mPa s	-	2200	-	-
Viscosity at - 25°C	DIN 51 377	mPa s	6000	-	-	-
Viscosity 40°C	DIN 51 562	mm ² /s	39	57	103	152
Viscosity 100°C	DIN 51 562	mm ² /s	6.5	7.8	11.5	15.0
Viscosity index (VI)	DIN ISO 2909	-	112	101	95	97
Flash point COC	DIN ISO 2592	°C	212	220	235	240
Pour point	DIN ISO 3016	°C	-24	-22	-18	-15
Base number	DIN ISO 3771	mgKOH/g	9.7	9.7	9.7	9.7
Sulphated ash	DIN 51 575	g/100 g	1.3	1.3	1.3	1.3

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* meets the requirements of the OEM manufacturer.
The stated values may vary within the usual commercial range.