



A Subsidiary of PETRONAS Chemicals Group

PRODUCT DATA SHEET

Petrolad[®] 336 EP

Cost-Effective, Multi-Purpose Gear Oil
Additive Package

BRB Lube oil Additives & Chemicals

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Cost-Effective, Multi-Purpose Gear Oil Additive Package



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Product Description

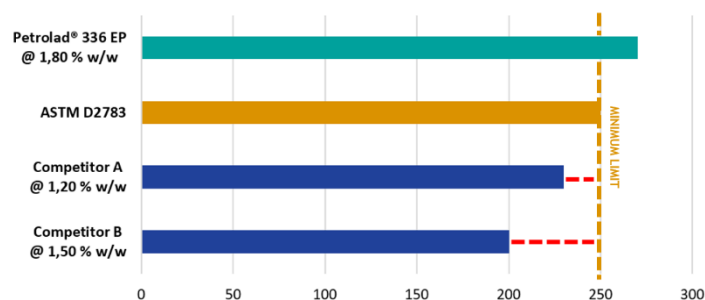


Petrolad® 336 EP is a cost-effective additive package, designed for the formulation of low-odour automotive and industrial gear oils. Moreover, Petrolad® 336 EP is the extreme-pressure version of Petrolad® 336, and as such is suitable for the demanding conditions of some off-road and other high-performance applications. It is soluble in various mineral and some synthetic base stocks. On the automotive front, it meets GL-5 at a 4,00 % w/w maximum dosage, among other key specifications (below). In addition, Petrolad® 336 EP demonstrates a coverage of various sought-after industrial specs, e.g., ISO 12925-1 (L-CKC) and DIN 51517-3.

Benefits

- A cost-effective package due to its competitive dosage, flexible nature & outstanding long-life performance.
- Excellent friction coefficient & micro-pitting test results.
- Strong water demulsibility/separability, key for industrial.
- Clear pass for the former CRC L-60/-42/-37, along with others.
- Great anti-oxidation properties & seal test outcome (as per DIN 51517-3).
- Unique sulphur/phosphorus-based technology, resulting in clear, low-odour gear oils.

Weld Load Performance (kgf) Superiority,
4 Ball Test @ AIST 224 Specification,
VG 220 Oil Formulation

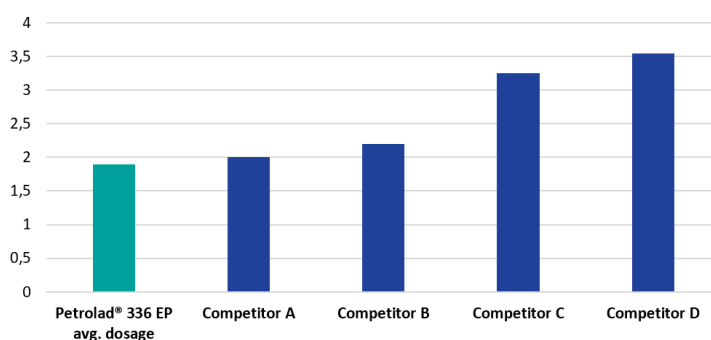


Performance

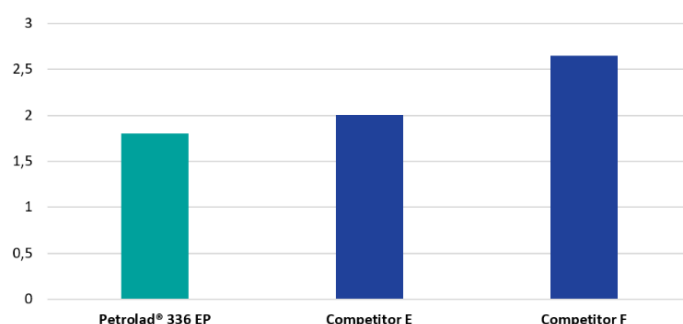
Automotive Specification	Dosage* (% w/w)
GL-4	1,80–2,00
MT-1	3,00
GL-5	3,80–4,00
SAE J2360	4,50
MACK GO-J	4,50–5,00
Ford WSD-M2C200-C	5,00
MACK GO-J plus	6,00
Scania STO 1:0	6,00
MAN 342 M1, M2, M3	7,00
MAN 342 S1, S2	8,00
Industrial Specification	Dosage (% w/w)
AIST 224	1,80
DIN 51517-3	1,80
AGMA 9005-E02	2,00
ISO 12925-1 (L-CKC, enclosed gears)	2,00
ISO 6743-6 (L-CKC)	2,00

*Some dosages (% w/w) may vary, depending on the viscosity grade.
**Various customers indicated to BRB that using our product in their formulations has led to achieving limited-slip (LS) performance.

Automotive Superiority (% w/w)
@ GL-4 Specification



Industrial Superiority (% w/w)
@ DIN 51517-3 Specification



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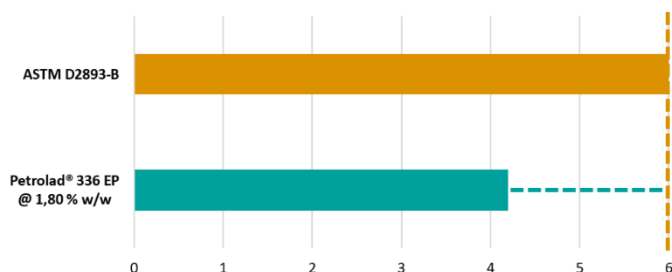
Petrolad® 336 EP

Cost-Effective, Multi-Purpose Gear Oil Additive Package

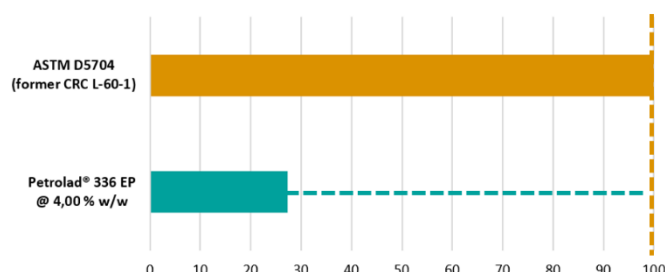


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KV Increase @ 100 °C (%),
Oxidation Stability Test @ DIN 51517-3 Specification,
VG 220 (500N + Bright Stock) Oil Formulation



KV Increase @ 100 °C (%) @ 50 h,
Thermal Oxidation Stability Test @ GL-5 Specification,
SAE 90 (500 SN + Bright Stock) Oil Formulation



Typical Data

Parameter	Unit	Method	Typical
Appearance	-	Visual	Clear orange liquid
Density @ 15 °C	g/cm ³	ASTM D4052	0,956
Kinematic viscosity @ 40 °C	cSt	ASTM D445	40
Flash point	°C	ASTM D92	100
Sulphur content	% w/w	IH TM	19,2
Phosphorus content	% w/w	IH TM	0,5

Handling & Storage

Minimum loading/unloading/pumping temperature	20 °C
Maximum loading/unloading/pumping temperature	50 °C
Maximum blending temperature	50 °C
Maximum storage temperature	25 °C
Maximum long term* storage temperature	25 °C

*Longer than 2 months.

The abovementioned properties are typical and should not be used as quality control parameters to accept or reject the product. Its MSDS, specific blending guidelines, technical data and formulas are available upon request. Details on the non-EP version, Petrolad® 336, can also be provided.

FOR MORE INFORMATION

Please contact

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IMPORTANT NOTICE

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