



A Subsidiary of PETRONAS Chemicals Group

PRODUCT DATA SHEET

Petrolad[®] 9200

Multi-Purpose Engine Oil Additive Package

BRB Lube oil Additives & Chemicals

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Product Description



Petrolad® 9200 is a multi-purpose engine oil additive package, developed for formulating cost-effective and reliable passenger car motor oils (gasoline/diesel) and heavy-duty diesel oils through a cascade technology (SL/CF to SB/CB) that is suitable for use in vehicles, where API certification is not required.

Petrolad® 9200 is also suitable for Motorcycle Oils (MCO) meeting the JASO T903:2016 specification. This additive package's economical treat rates and performance claims are presented below.

Benefits

- Excellent wear and rust protection, deposit control and anti-oxidation in both gasoline and diesel engines, without requiring booster packages.
- Cost-effective additive package, due to both (1) delivering optimized performance on a cascade basis and (2) covering multiple key application segments for versatile lubricant manufacturers and blenders.
- Strong results as per the various requirements of 10W-40 and 10W-30 engine oil blends.

Performance

Petrolad® 9200 provides reliable performance in finished engine oils, when blended in appropriate base stocks such as GR I-IV (PAO), with a Viscotech® viscosity index improver with appropriate shear stability, e.g., Viscotech® 6540L 1300 cSt. Petrolad® 9200 is suitable for use in the following gasoline/diesel API specifications:

API performance level*	Dosage % w/w	
	Mono grade	Multi grade
SL/CF	6,00	6,00
SJ/CF-4	5,75	5,75
SJ/CF	4,50	4,50
SG/CF-4	5,50	5,50
SG/CF	3,25	3,25
SF/CF SF/CD SF/CC	3,15	3,15
SE/CD SE/CC SD/CC	2,75	3,15
SC/CC	2,00	2,30
SB/CB	1,50	1,75

*Based on theoretical evaluations with regards to key elementals, the product might be suitable for SN mono/multi grade formulations (at 8% w/w), in high-quality base oils, for the viscosity grades 5W-40, 5W-50, 10W-40, 15W-40 & 20W-50.

Next to the above standards, Petrolad® 9200 also meets the following MCO specification at a competitive treat rate:

Performance level	Dosage % w/w
JASO T903:2016	6,00

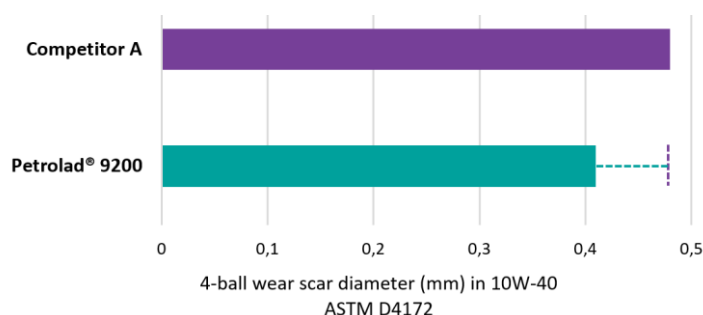
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JASO T903:2016 Specification	Test Limits	10W-30 Results	10W-40 Results
Dynamic friction index (DFI)	1,50 – 2,50	1,94	1,95
Static friction index (SFI)	1,60 – 2,50	1,77	1,69
Stop time index (STI)	1,60 – 2,50	1,95	1,92

Typical Data

Parameter	Unit	Method	Typical
Appearance	-	Visual	Dark brown liquid
Density @ 15°C	g/cm ³	ASTM D4052	1,01
Kinematic viscosity @ 100°C	cSt	ASTM D445	32
Total base number (TBN)	mg KOH/g	ASTM D2896	138
Flash point	°C	ASTM D93	150
Calcium content	% w/w	IH TM ¹	4,07
Phosphorus content	% w/w	IH TM ¹	1,84
Sulphur content	% w/w	IH TM ¹	4,37
Zinc content	% w/w	IH TM ¹	1,80

¹ICP or XRF.

Handling & Storage

Minimum loading/unloading/pumping temperature	20 °C
Maximum loading/unloading/pumping temperature	45 °C
Maximum blending temperature	55 °C
Maximum storage temperature	45 °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. An MSDS is available on request.

FOR MORE INFORMATION

Please contact

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IMPORTANT NOTICE

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