

Pure Performance[®]

110N *and* *225N*

*Clearly Superior
Solutions*



**PURE
PERFORMANCE**[®]

BASE OILS



Pure Performance[®] ***Base Oils***

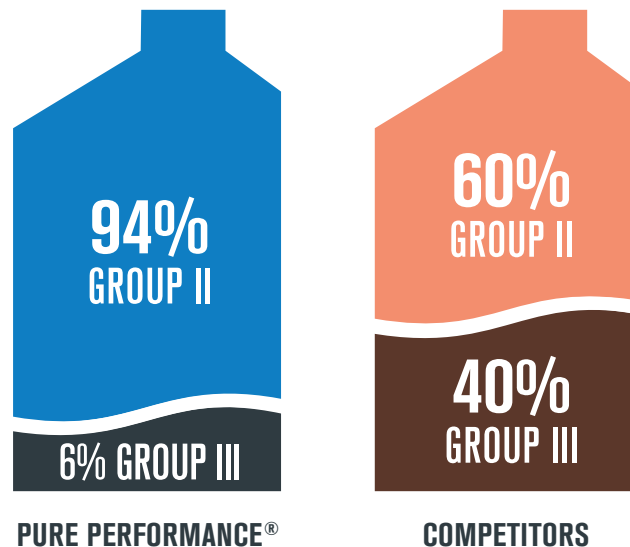
The enhanced specifications place Pure Performance[®] 110N and 225N at the forefront of Group II base oils market. These products now offer some of the lowest volatility and cold temperature properties amongst Group II base oils produced in North America, with a potential to deliver improved blend economics. Incorporate quality Group II Pure Performance base oils into your products today.

5W-20 FORMULATION

Lower your 5W-20 PCMO formulation cost

- Substantially reduces the need for Group III correction stock.
- Sizeable savings realized by using enhanced Pure Performance base oils.
- Low NOACK Pure Performance 110N and low CCS Pure Performance 225N specifications are considerably superior to competitors' Group II base oils.

BASE OIL COMPOSITION



10% POTENTIAL REDUCTION IN LUBRICANT COSTS*

5W-20 API SN/GF-5 PCMO

Composition	Pure Performance	Industry
Pure Performance 110N	45.5%	-
Pure Performance 225N	36.0%	-
4 cSt Group II	-	16.0%
6 cSt Group II	-	35.0%
4 cSt Group III	5.0%	35.0%
PCMO VM additive	4.5%	5.0%
PCMO DI Additive	9.0%	9.0%

Estimated properties	Pure Performance	Industry
KV at 100°C, cSt	8.5	8.5
CCS (30°C), cP	6100	5900
Noack Volatility, wt%	14.5	14.5
HTHS at 150°C, cP	2.65	2.65

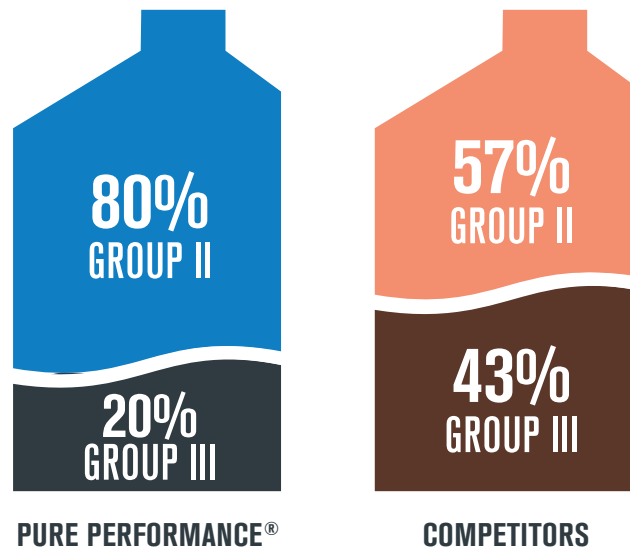
*Potential reduction in lubricants costs depends on factors like additive chemistry, blend formulas, quality of other components, prices, etc. Above estimates are for illustrative purposes only. Lubricant blender is responsible for obtaining any applicable approvals and licensing of formulations.

5W-30 FORMULATION

Lower your 5W-30 PCMO formulation cost

- Substantially reduces the need for Group III correction stock.
- Sizeable savings realized by using enhanced Pure Performance base oils.
- Low NOACK Pure Performance 110N and low CCS Pure Performance 225N specifications are considerably superior to competitors' Group II base oils.

BASE OIL COMPOSITION



6%

POTENTIAL REDUCTION IN LUBRICANT COSTS*

5W-30 API SN/GF-5 PCMO

Composition	Pure Performance	Industry
Pure Performance 110N	34.0%	-
Pure Performance 225N	32.0%	-
4 cSt Group II	-	17.0%
6 cSt Group II	-	30.0%
4 cSt Group III	16.0%	35.0%
PCMO VM additive	9.0%	9.0%
PCMO DI Additive	9.0%	9.0%

Estimated properties	Pure Performance	Industry
KV at 100°C, cSt	11.1	11.1
CCS (30°C), cP	6300	6000
Noack Volatility, wt%	15.0	14.5
HTHS at 150°C, cP	3.1	3.1

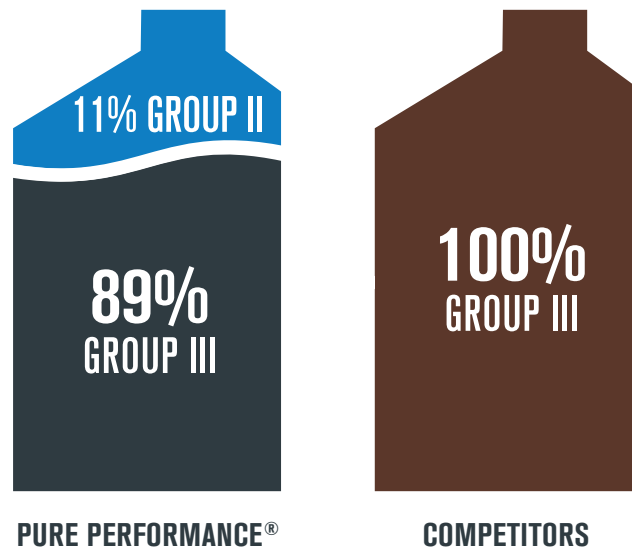
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OW-20 FORMULATION

Lower your OW-20 PCMO formulation cost

- Substantially reduces the need for Group III correction stock.
- Sizeable savings realized by using enhanced Pure Performance base oils.
- Low NOACK Pure Performance 110N and low CCS Pure Performance 225N specifications are considerably superior to competitors' Group II base oils.

BASE OIL COMPOSITION



3%

POTENTIAL REDUCTION IN LUBRICANT COSTS*

OW-20 API SN/GF-5 PCMO

Composition	Pure Performance	Industry
Pure Performance 110N	9.0%	-
Pure Performance 225N	-	-
4 cSt Group II	-	-
6 cSt Group II	-	-
4 cSt Group III	75.0%	84.0%
PCMO VM additive	7.0%	7.0%
PCMO DI Additive	9.0%	9.0%

Estimated properties	Pure Performance	Industry
KV at 100°C, cSt	8.8	8.8
CCS (30°C), cP	5500	5300
Noack Volatility, wt%	14.5	14.5
HTHS at 150°C, cP	2.6	2.6

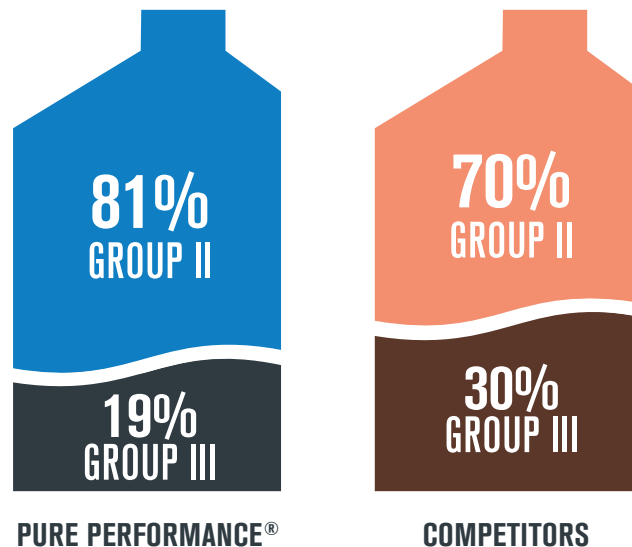
*Potential reduction in lubricants costs depends on factors like additive chemistry, blend formulas, quality of other components, prices, etc. Above estimates are for illustrative purposes only. Lubricant blender is responsible for obtaining any applicable approvals and licensing of formulations.

10W-30 FORMULATION

Lower your 10W-30 HDEO formulation cost

- Substantially reduces the need for Group III correction stock.
- Sizeable savings realized by using enhanced Pure Performance base oils.
- Low NOACK Pure Performance 110N and low CCS Pure Performance 225N specifications are considerably superior to competitors' Group II base oils.

BASE OIL COMPOSITION



3%

POTENTIAL REDUCTION IN LUBRICANT COSTS*

10W-30 API CK-4 HDEO

Composition	Pure Performance	Industry
Pure Performance 110N	10.0%	-
Pure Performance 225N	55.0%	-
4 cSt Group II	-	-
6 cSt Group II	-	55.0%
4 cSt Group III	15.0%	25.0%
PCMO VM additive	5.0%	5.0%
PCMO DI Additive	15.0%	15.0%

Estimated properties	Pure Performance	Industry
KV at 100°C, cSt	12.0	12.0
CCS (30°C), cP	6300	6000
Noack Volatility, wt%	13.0	13.0
HTHS at 150°C, cP	3.6	3.6

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