



Empowering innovation for evolving lubricant needs

Demand continues to grow for lubricants that offer greater energy efficiency, longer drain intervals, better performance in a wider temperature range, and increased durability even under severe conditions. To help satisfy these needs, formulators must develop innovative products. That's why so many of them are turning to SpectraSyn Elite metallocene polyalphaolefin (mPAO) synthetic base stocks.

SpectraSyn Elite™ mPAO*

Grade	SG at 15.6 / 15.6°C	KV at 100°C cSt	KV at 40°C cSt	VI	Pour point °C	Flash point (COC) °C
	ASTM D4052	ASTM D445	ASTM D445	ASTM D2270	ASTM D97/ D5950	ASTM D92
SpectraSyn Elite™ 65	0.846	65	614	179	-42	277
SpectraSyn Elite™ 150	0.849	156	1649	210	-33	277
SpectraSyn Elite™ 300	0.849	303	3358	241	-33	286

* Typical properties; actual values will vary; not to be construed as specifications; sales specifications available at exxonmobilsynthetics.com

Performance benefits include:



Improved shear stability for durability



High viscosity index for low and high temperature performance



Low pour point and better Brookfield Viscosity for improved low temperature fluidity

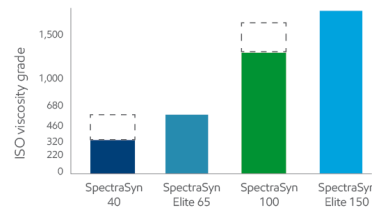
High-performance, high-viscosity SpectraSyn Elite mPAO provides the versatility you need to formulate a wide range of innovative finished lubricants to help meet the needs of the demanding marketplace.

Created using a proprietary catalyst process, SpectraSyn Elite mPAO synthetic base stocks deliver improved shear stability, blending efficiency, higher viscosity index (VI) and lower pour point compared to conventional PAO. Additionally, SpectraSyn Elite mPAO can help to provide enhanced energy efficiency in formulated oils.

SpectraSyn Elite mPAO is well suited for industrial and automotive applications. Meet today's and tomorrow's challenges with SpectraSyn Elite mPAO base stocks that deliver a truly next-generation, advanced technology solution.

Enhanced blending flexibility

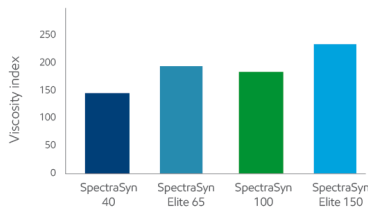
Viscosity grade coverage by product



SpectraSyn Elite™ mPAOs provide the ability to blend to a wide viscosity range.

Viscosity index comparison

Neat base stocks

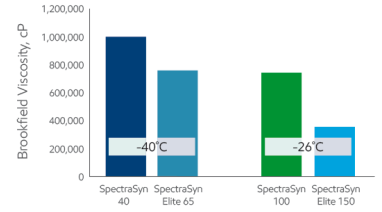


SpectraSyn Elite™ mPAOs demonstrate improved viscosity index.

Test method: ASTM D2270

Brookfield comparison

Neat base stocks

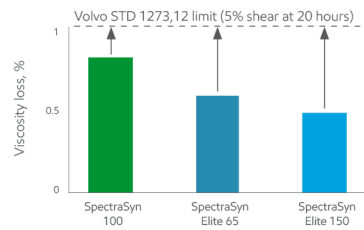


SpectraSyn Elite™ mPAOs have improved low-temperature fluidity.

Test method: ASTM D2983

Shear stability of formulated oils

Automotive gear oil — 75W-90

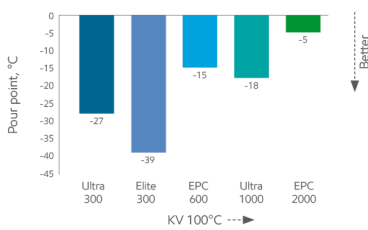


The shear stability benefits of SpectraSyn Elite™ mPAOs can translate into finished formulations.

Test method: CEC L-45-A-99 100 hrs

Pour point comparison

Neat base stocks

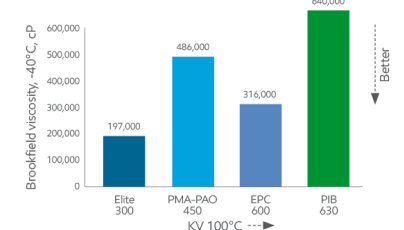


SpectraSyn Elite™ 300 provides lower pour point.

Test method: ASTM D5950

Brookfield comparison

Industrial gear oil — ISO VG 320



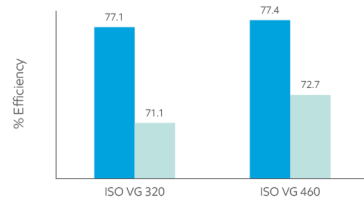
SpectraSyn Elite™ 300 provides excellent low-temperature fluidity.

Test method: ASTM D2983

Energy efficiency of formulated oils

Worm gear efficiency rig

High sliding contact region

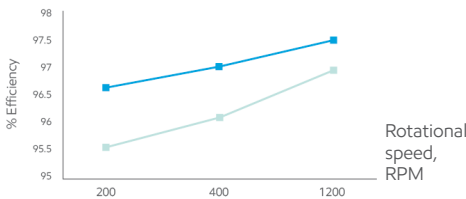


SpectraSyn Elite 150 can provide enhanced energy efficiency in formulated oils compared to mineral oils.

Test method: ExxonMobil method

FZG full load

Slide to rolling contact region



Test method: ASTM D5182

High viscosity base stocks

Elite = SpectraSyn Elite mPAO

Ultra = SpectraSyn Ultra™ PAO

EPC = Ethylene propylene copolymer

PAMA = Polyalkylmethacrylate

PIB = Polyisobutylene

PMA-PAO = Polymethacrylate PAO

Data from tests performed by or on behalf of ExxonMobil

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