



# Synton<sup>®</sup> PAO 40

## poly alpha olefin

Issued: 08-05-2000  
Revised: 12-05-2005  
Revision: 01

**DESCRIPTION** Synton<sup>®</sup> PAO 40 is a high viscosity poly alpha olefin fluid that can be used as a base stock and viscosity builder for a wide range of engine and industrial lubricating oil products. It is manufactured by the polymerization of alphaolefins. Synton PAO 40 has excellent oxidation resistance, shear stability, low pour point, low volatility and a high flash point and is completely compatible with a wide range of synthetic and mineral base oils.

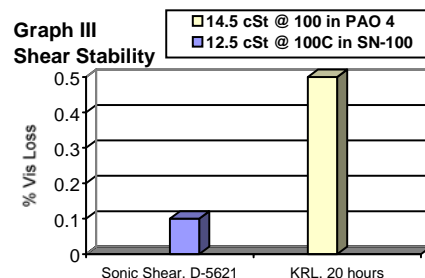
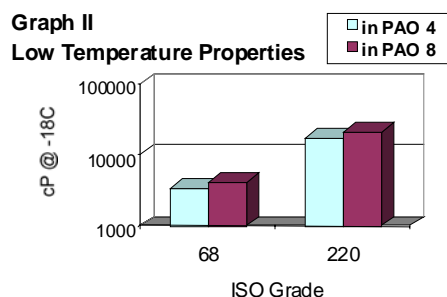
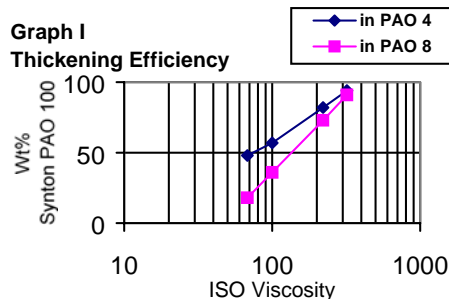
Synton PAO 40 can be used as a base stock and viscosity builder for a wide range of engine and industrial lubricating oil products, both mineral oil and synthetic based. Some examples:

- Gear Oils (Automotive & Industrial )
- Bearing Lubricants
- Circulating Oils
- Compressor Oils
- Turbine Oils
- Grease

Synton PAO 40 is a viscous liquid used to thicken classic fluid bases to make a variety of high viscosity SAE and ISO grade lubricants. Typical usage levels for various high viscosity ISO grade products can be estimated using Graph I.

Low temperature characteristics are very important in synthetic lubricants. Some typical brookfield viscosity results at -18°C, using Synton PAO 40, are demonstrated in Graph II.

The Synton PAO 40 is a low molecular weight polymerized alphaolefin that demonstrates excellent shear stability. Examples, using the Sonic Shear and KRL (20-hour Tapered Bearing Shear Test) techniques are shown in Graph III.



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### TYPICAL DATA

#### Properties

Kinematic Viscosity @ 100°C, cSt	40
Specific Gravity (20/20°C)	0.842
Color, APHA	20
Flash Point, °C, ASTM D-92	294
Fire Point, °C, ASTM D-92	316
Pour Point, °C, ASTM D-97	-30

#### Typical

### HANDLING INFORMATION

Synton PAO 40 is a viscous liquid polymer and is normally handled at slightly elevated temperatures. For a complete description of the proper storage and handling conditions, please refer to Technical Bulletin SL-3. For general purposes, the following maximum storage and handling temperatures are recommended:

<u>Storage</u>	<u>Handling under Nitrogen</u>	<u>Handling without Nitrogen</u>
50°C (122°F)	100°C (212°F)	80°C (176°F)

### SAFETY INFORMATION

Synton PAO 40 exhibits an extremely low level of dermal, oral and inhalation toxicity, as well as, low eye irritation.

For more extensive information on the safe handling and use of this product, see the Material Safety Data Sheet.

### SHIPPING INFORMATION

Product is shipped under a nitrogen blank in tank trucks, railcars, and non-returnable 55-gallon (imperial) steel drums (370 lbs. net).

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