



## SynMax Performance Lubricants

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### **Q & A TECHNICAL BULLETIN – MOTOR OIL & SEAL PERFORMANCE**

#### **Q: Will the synthetic oil affect the oil seals?**

A: No. SynMax motor oil is fully compatible with the modern seal elastomers found in rotary and conventional piston engines. Modern oil seals, housing seals and other elastomers used in rotary engines typically consist of Buna N, Nitriles, Neoprene or Viton materials, which are also commonly found in modern seal designs.

#### **Q: I hear that synthetic is ‘thinner or lighter’ oil. Is there a greater possibility that the oil will leak between the seals?**

A: No. If an engine’s sealing surfaces are in good condition, synthetic oil should not cause any leakage. However, if an engine has marginal quality and worn seals, there is a possibility seals will leak. Synthetic motor oil has a lighter gravity in design than mineral oils, yet improved viscosity to that of a conventional mineral motor oils. At low pour point temperatures synthetics will not “thicken” (easier winter cranking) and will not thin out as quickly at higher operating temperatures (better oil film at higher rpm).

#### **Q: Will synthetic oil cause my modern engine to leak?**

A: If the seal is worn because of the lack of proper maintenance – yes a thinner gravity oil (synthetic) will have a great chance to leak as compared to a heavier Petroleum product. Properly formulated synthetic oils in modern designed engines will generally not cause an engine oil leak. Synthetic oils possess a higher degree of natural solvency from a chemical molecule called “Ester”, which can clean and remove deposits left by previous oils. Modern vehicles have special designed seals to handle the newer synthetic oils. The removal of extensive oil deposits can expose marginal or damaged oil seals, which may then leak. If an engine currently has excessive oil consumption (i.e. greater than 1 quart / 1,000 miles) the recommended course of action is to solve the oil consumption problem before switching to a synthetic.

#### **Q: Will synthetic oil cause my Classic - older engine to leak?**

A: Generally, Yes – Synthetic oils possess a higher degree of natural solvency from a chemical molecule called “Ester”, which can clean and remove deposits left by previous oils. Further, older designed motors have seals materials made out of rubber. Rubber is not compatible with synthetic Esters – which will cause seals to become dry, brittle and fail. Removal of extensive oil deposits can expose marginal or damaged oil seals, which may then leak. Older or classic type motors are suggested to use Classic Hot Rod motor Oil –100% petroleum base oils with complete compatibility with older rubber material seals.

#### **Q: I heard that synthetic oil doesn’t burn like mineral based oils and will coat the inside of the engine with deposits. Is this true?**

A: The opposite is actually true. Conventional four-cycle motor oils will typically leave deposits of carbon and ash when injected into the rotary apex seal, corner seal and side seal areas. Coating of the inside is actually a varnish effect because of the lack of proper detergency package in the oil and/or a higher sulfur content within the base product selected by the manufacturer. SynMax motor oil burns cleaner due to its synthetic base stock being free of contamination and advanced detergency additives. SynMax formulation of synthetic hydrocarbon motor oil burns at the nominal combustion temperatures experienced in both street and racing applications, whether normally aspirated, turbocharged or supercharged.