

Product Data Sheet

Full Synthetic Motor Oil (SN/SN Plus) Premium Gold

SAE:	0W16	0W20	0W40	5W20	5W30	5W40	5W50	0W30	10W40
Product Code:	504	505	506	507	508	509	510	511	512

OVERVIEW

Full Synthetic Motor Oil SN Plus engine oils are specially formulated using synthetic base oils and high performance additive packages to provide superior performance benefits over conventional engine oils. These oils are formulated for excellent oxidation stability for long product life, superior low-temperature properties to insure protection during cold starts, lower volatility for reduced oil consumption, and excellent resistance to viscosity breakdown. **Full Synthetic Motor Oil SN Plus** engine oils exceed the most demanding lubrication requirements of today's naturally aspirated, turbo-charged and super-charged gasoline fueled and flex-fueled engines. These oils also exceed the requirements of API SN and ILSAC GF-5 and are "Resource Conserving" for improved fuel economy. These oils provide extra protection against the harmful effects of city driving, where cars undergo a higher stress due to constant stopping and going.

Full Synthetic Motor Oil SN engine oils are formulated to help improve gas mileage for long engine life and helps protect against rust, corrosion, startup wear, varnish build-up, and eliminates the need for extra oil additives and cold start up. It also protects against thermal breakdown which helps prevent stuck rings. Specially formulated to protect high compression gasoline direct injection engines from the occurrence of Low Speed Pre-Ignition (LSPI) and Timing Chain Wear.

FEATURES / BENEFITS

Full Synthetic Motor Oil SN Plus engine oils are Specially formulated to protect high compression gasoline direct injection engines from the occurrence of Low Speed Pre-Ignition (LSPI) and Timing Chain Wear. These oils are exceptionally shear stable, have extremely low volatility resulting in less oil burn off at high temperatures, and contain robust anti-oxidation technology and detergency. The advanced additive

system in **Full Synthetic Motor Oil SN Plus** engine oils provide outstanding wear protection for vehicles of all ages. Their excellent high temperature protection, easy starting and rapid oil circulation during cold starts protect critical engine parts and helps keep engines cool, while the superior additive technology utilized helps control oil consumption and loss. They ensure excellent protection against sludge and varnish, makes them highly resistant to foaming, corrosion, and thermal breakdown, while improving overall oil film strength for greater wear protection and a lower coefficient of friction to improve fuel economy.

APPLICATIONS

Full Synthetic Motor Oil SN Plus engine oils exceed the most demanding lubrication requirements of today's naturally aspirated, turbo-charged and super-charged gasoline fueled and flex-fueled engines. **Full Synthetic Motor Oil SN Plus** engine oils are recommended for Original Equipment Manufacturers (OEM) such as Toyota and Honda for some hybrid vehicle applications and a limited number of low temperature applications.

SPECIFICATION /Suitable for Use Claims

Full Synthetic Motor Oil SN Plus engine oils exceed API SN, SN Plus /ILSAC GF-5 Resource Conserving • Ford WSS-M2C945-A (5W-20), WSS-M2C946-A (5W-30) WSS-M2C947-A (0W-20) • Chrysler MS-6395 (0W-20, 5W-20, 5W-30, 10W-30) • GM 6094M • Honda/Toyota (0W-20). These products are also recommended for older engines, which owner's manual calls for API SN PLUS, SN, SM, SL Service Classifications or any combination thereof. Viscosity recommendations vary according to temperature and engine manufacturer. Always refer to your owner's manual for your recommended viscosity grade. In addition to Toyota and Honda is also suitable for Mazda.

ALWAYS CONSULT YOUR OWNER'S MANUAL FOR THE PROPER LUBRICANT OIL FOR YOUR EQUIPMENT.

TYPICAL TEST DATA

PRODUCT CODE	504	505	506	507	508	509	510	511	512
SAE GRADE	0W-16	0W-20	0W-40	5W-20	5W-30	5W-40	5W-50	10W-30	10W-40
API/ILSAC/ ACEA Specifications	SN, SN Plus/ GF-5	SN, SN Plus/ GF-5	SN, SN Plus/ GF-5	SN, SN Plus/ GF-5	SN, SN Plus/ GF-5	SN, SN Plus/ GF-5	SN, SN Plus/ GF-5	SN, SN Plus/ GF-5	SN, SN Plus/ GF-5
Specific Gravity	0.844	0.852	0.8387	0.852	0.852	0.8452	0.8503	0.865	0.8544
Viscosity, cSt @ 100°C	7.3	9.0	14.5	8.8	10.8	13.9	19.8	10.0	14.7
Viscosity, cSt @ 40°C	39.5	43.5	85.9	44.0	62.0	84.6	129.3	58.0	96.9
Viscosity, Cold Crank S cP @°C	5800 (-35)	5800 (-35)	5,248 (-35)	6000 (-30)	5000 (-30)	5200 (-30)	6,230	5000 (-25)	4,860 (-25)
Viscosity Index	158	170	176	165	165	169	176	155	159
Pour Point, °C	-48	-45	-54	-42	-42	-42	-30	-39	
Flash Point, °C	226	229		229	235	466	453	235	
Zinc, Wt. (%)	0.082	0.082	0.081	0.082	0.082	.09	0.093	0.082	0.087
Calcium, Wt. (%)	0.136	0.136		0.136	0.136			0.136	
Phosphorus, Wt. (%)	0.075	0.075	0.069	0.075	0.075	0.07	0.082	0.075	0.076
(NOACK), Wt. (%)	13.0	14.0	7.6	9.0	11.0	8.0	8.0	10.0	5.0
High Temp/ High Shear, cP @150°C	2.4	2.7	3.8	2.7	3.0	3.8	4.5	3.1	4.0

The above test data are average values only. Minor variations which do not affect product performance are to be expected during manufacturing. Specific PDS for each product will be provided upon purchase.