Extreme

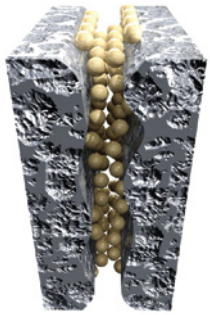
nano^n LUBRICANTS

BY PROPIONEER ENGINEERING

Nano^n Lubricants Extreme Series

Breakthrough in Engine Oil Industry, Long Life and Superior Performance

Formulated for Excellent Performance and Durability. Full double ester and PAO 100% genuie synthetic base oil blends with proprietary friction modifiers and organic anti-wear additives. Extreme series provides excellent protection under high performance applications, high temperature environments for endurance race applications. Proprietary viscosity modifiers and high quality synthetic base oil ensure stable high temperature perfomrance and suprioer low temperature properties.



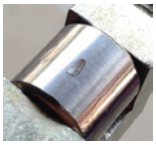
Very small organic particles forms roller film protective layer between rough surfaces, filling up games and cracks on worn surfcaes

Superior Anti-Wear Formulation

Racing and high-performance engines are typically modified to deliver maximum horsepower and speed. Their powerful designs create shearing forces that can cause lesser oils to lose `viscosity, leaving bearings, pistons and other components vulnerable to wear and failure. Nano^n Lubricants use a special synthetic organic anti-wear technology resists of operating high temperature up to 250^{o}C. This long lasting nano particle is proven long lasting until engine oil end of service life.

Left 10 minutes of non stop Timken experiment high load 200^{o}C high temperature results of Nano^n Lubricants

Right Timken test result of traditional MoS_2 and ZDDP based technology under light load testing



Right Same Timken experiment is performaned on metal piece after engine oil after six-month and 15,000km of service. (2010 Honda Civic 1.8, Extreme 0W-30 is being tested)

Super Low Friction

Organic anti friction and anti-wear components, Nano^n Lubricants reduces friction, provides cooler engine temperatures, long lasting, maximum stability in high temperature working condition. Less friction translate into higher engine torque output.

Maximum Power Output

Formulated by a special proprietary viscosity modifier, Nano^n Lubricants out performs normal engine oil durability and viscosity stability control. Super low drag by maximum oil flow capabilities, stable viscosity ensure stable and maximized engine output with stable high cylinder compressions.

Protection from Startup to Endurance Race Finish

Excellent cold temperature anti-wear performance, extreme low pour point with extra high HTHS (High-Temperature/High-Shear) viscosity at elevated operating temperatures maintains superior film strength. Nano^n Lubricants shows thermally stable synthetic chemistry resists the effects of intense heat which common to racing engines.

Superior Engine Cleanliness

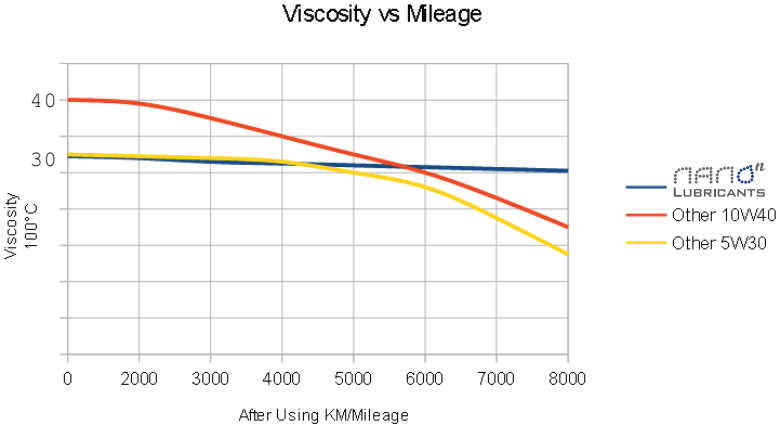
Fully synthetic high concentration double ester provides excellent oxidation stability, heat resistance and detergency properties. Designed to prevent sludge and varnish deposits, reduced oil and fuel consumption, extends engine life and provide maximum performance.

Extended Oil Drain

Both supurior low temperature and high temperature performance enables Nano^n Lubricants Extreme series use on daily sports car and tuned engines. Its superior synthetic chemistry allows high performance operations with extended oil drain. Extreme low evaporation loss catered for high temperature operated engines to minimize oil loss.

Exteneded Performance Lifetime

Wtih ProPioneer's proprietary high performance viscosity modifier, in combination with superior high performance PAO and double ester synthetic base oil, Extreme series oil performs exceptionally stable in high temperature high shear conditions. Oil performs like new even after thousands of kilometers of severe service operations. This feature enables engine output and efficiency to maximum from start to end of oil service life time.



Above information refer to typical scenario. In reality, the actual degrade of viscosity depends on fuel quality, engine conditions, driving behaviour and whether conditions.

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Typical Technical Properties

	0W20	0W30	0W40	0W50	5W30	5W40	5W50	5W60
Kinematic Viscosity @ 40°C , cSt(ASTM D445)	42.0	65.6	90.52	98.0	68.8	94	102	125
Kinematic Viscosity @ 100°C , cSt(ASTM D445)	8.9	12.1	15.7	18.8	12.1	15.7	19.8	23
Vicosity Index (ASTM D2270)	199	184	185	214	175	178	209	215
CCS, mPa.s (°C) (ASTM D5293)	4500(-35)	4830(-35)	5650(-35)	5650(-35)	5060(-30)	5800(-30)	5650(-35)	6000(-35)
Flash Point °C (ASTM D92)	>240	>240	>235	>235	>240	>235	>235	>235
Pour Point °C (ASTM D97)	-50	-50	-50	-48	-48	-48	-48	-46
Noack Volatility, %weight loss (ASTM D5800)	7.6	8.0	8.8	9.5	5.5	7.3	8.0	9.0
Total Base Number (ASTM D2896)	7.6	7.7	10.6	11.5	7.7	10.2	11.5	12.0
High Temperature/High-Shear Viscosity (ASTM D5481)	**2.9**	**3.5**	**4.2**	**4.7**	**3.6**	**4.2**	**4.8**	**5.7**
Sulfated Ash, %weight (ASTM D874)	<0.85	<0.85	<1.2	<1.2	<0.85	<1.2	<1.2	<1.5

Meets or Exceeds following requirements

Due to difference viscosities of oil meets different requirements and standards, not all oil meets the same API/ACEA/Manufacturer requirements.

0W20 - Sprint
API SN/CF
ACEA A1/B1, A5/B5
GM Dexos1, GM6094M, Ford WSS-M2C947-A, VW 508/509
Honda Earth Dreams Type-R

0W30 - Sports
API SN/CF
ACEA A3/B4
MB229.3/229.5, BMW LL01, VW 502/503/505

0W40 - Power
API SN/CF
ACEA A3/B4
PORSCHE A40, MB 229.3/229.5, BMW LL01, VW 502/503.01/505

0W50 - Hyper
API SN/CF
ACEA A3/B4
PORSCHE A40, MB 229.1/229.3

5W30 - Racing
API SN/CF
ACEA A3/B4
MB229.3/229.5, BMW LL01, VW 502/503/505

5W40 - Boost
API SN/CF
ACEA A3/B4
PORSCHE A40, MB229.3/229.5, BMW LL01,
VW 502/503.01/505

5W50 - Endurance
API SN/CF
ACEA A3/B4
PORSCHE A40, MB 229.1/229.3

5W60 - Le Mans
API SN/CF
ACEA A3/B4

Compatibility

Nano^n Lubricants is compatible with conventional and synthetic engine oils. However, mixing with other engine oil will shorten the oil's expected life time and reduce in performance benefits. ProPioneer Engineering does not guarantee performance viscosity properties where mixing with other oil.

Aftermarket additives are not recommended for use with Nano^n Lubricants

Applications

Designed for heavy duty perfrofmance driving with extended oil life. Suits high performance sports car, race modified engines, high temperature working conditions. Works on high speed naturally aspirated engines and turbocharged engines, gasoline, 4 stroke motocycles with dry clutch systems, LPG or diesel, hybrid vehicles. Consult your engine builder and service manual for recommended oil weights and types.

Service Life

Normal Service - 25,000KM, 800 hours of operation or one year
Severe Service - 15,000KM, 500 hours of operation or six months

Suggested service life is subjected to local gasoline quality, engine conditions and whether conditions, these numbers are for reference only and is not strict rule for service.

Warranty

All users of PPE Nano^n Lubricants subject to be coverd by limited product warranty. Please see http://www.propioneer.co/engine-oil-warranty for detail terms and conditions

Modern high performance super cars choose Nano^n Lubricants Extreme series

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