

The World's Leading
Synthetic Engine Oil

ExxonMobil
Lubricants & Specialties



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The cornerstone of performance is unrivalled innovation. Back in 1974 when Mobil 1 was launched, it was the first widely available automotive synthetic lubricant on the market. Today, there are others, but Mobil 1 is the World's Leading Synthetic Engine Oil.

Above all, the unique formulation of Mobil 1 provides an unsurpassed level of engine performance and protection.



Because your engine is unique and is constantly subjected to different levels of stress, we have formulated a range of fully synthetic engine oils containing SuperSyn Anti-Wear Technology. Choose Mobil 1. More Than Worth It!

A Range Of Oils For All Vehicles Types

Mobil 1 0W-40



ULTIMATE ALL ROUND PERFORMANCE

Mobil 1 0W-40 is a 100% fully synthetic motor oil formulated with the patented SuperSyn Anti-Wear technology. The Mobil 1 0W-40 grade delivers the viscosity required by many European car builders. Exceeding industry standards and the major leading builder requirements is the cornerstone of the performance reserve that keep Mobil 1 0W-40 performing well after conventional oils cannot. It provides outstanding protection, even during extended-use driving, coupled with excellent fuel economy performance.

- Unsurpassed protection for high-tech multi-valve engines
- Helps keep your engine running like new
- Improves engine protection during the critical start-up period
- Excellent high and low temperature performance
- Proven low fuel consumption formula

Meets API SM/CF, ILSAC GF-3 and ACEA A3/B3 & A3/B4. Approved against MB 229.3/229.5/225.8, BMW Longlife Oil 01, VW 502.00/503.01/505.00, Porsche Special Oil List & Porsche Cayenne V6 Longdrain, Opel GM-LL A-025 & Opel GM-LL B-025, DC DBL6674.31 & DC MS-10850.

Mobil 1 5W-50



DRIVING EXCELLENCE

Mobil 1 5W-50 is a 100% fully synthetic motor oil formulated with the patented SuperSyn Anti-Wear Technology. It provides outstanding protection, even during extended-use driving.

- Outstanding engine cleanliness and wear protection
- Helps keep your engine running like new
- Exceptional high temperature protection
- Improved protection against sludge and harmful deposits
- Suitable for older and new vehicles

Meets API SM/SL/SJ/CF and ACEA A3/B3 & A3/B4. Approved against MB 229.3, VW 505.00 and Porsche Special Oil List.

Mobil 1 5W-30



NEWER VEHICLE FORMULA

Mobil 1 5W-30 is a 100% fully synthetic motor oil formulated with the patented SuperSyn Anti-Wear Technology. The Mobil 1 5W-30 grade delivers the viscosity recommended for most General Motors vehicles and many Japanese car makers. Mobil 1 5W-30 is the approved and the first choice of premium car manufacturers, including Corvette. Mobil 1 5W-30 is an ILSAC GF-4 energy conserving viscosity that provides excellent all season protection. It is designed to provide outstanding wear protection, maintain excellent engine cleanliness, and the performance reserve to keep engines in newer cars running smooth and clean.

- Viscosity grade recommended by major Japanese and US car makers for new vehicles
- Helps keep your engine running like new
- Offers outstanding protection for high-tech multi-valve engines
- Excellent high and low temperature performance
- Exceptional cleanliness of engine parts

Meets API SM/SL/SJ/CF, ILSAC GF-4, ACEA A1/B1 & A5/B5, GM 4718M & GM 6094M and DC MS-6395, Ford WSS-M2C929-A, HONDA RWC and HONDA/ACURA HTO-06.

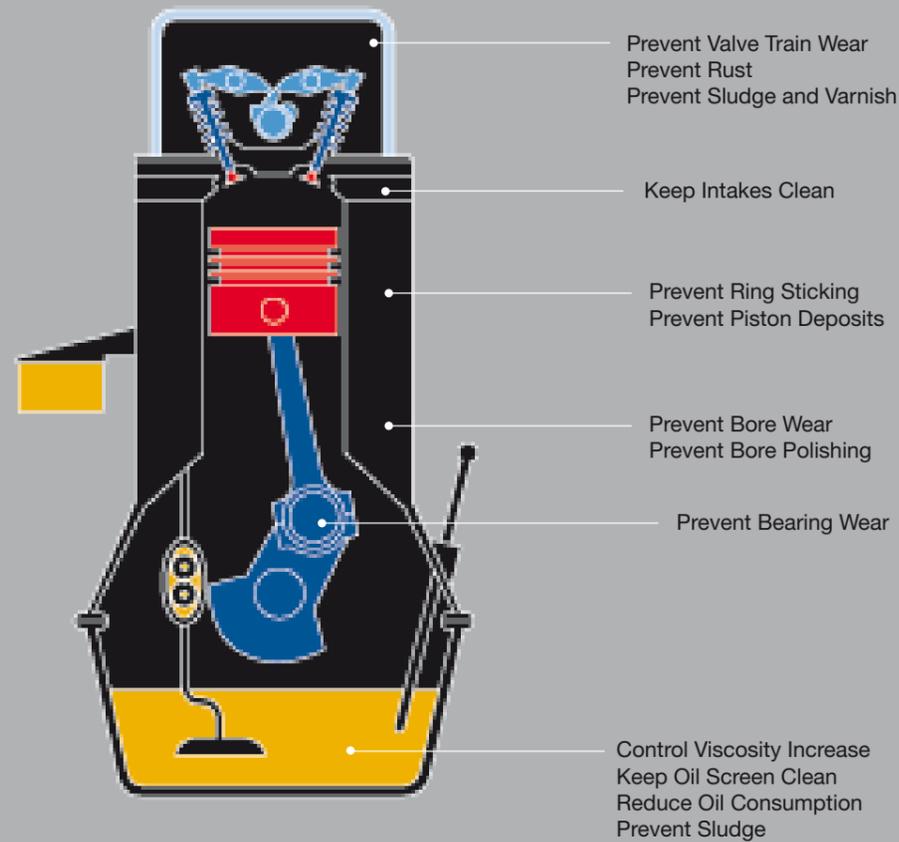
What Does Engine Oil Actually Do?

The engine of your vehicle is a complex machine with hundreds of moving parts that operate under a wide range of temperatures and stresses. The oil you select needs to be

equally capable of coping with these operating conditions to protect your engine against wear, corrosion, and the build-up of dirt and deposits.

Rough Temperature Regimes

- 200 - 350°C
- 80 - 150°C
- 50 - 80°C
- 30 - 50°C
- Ambient - 140°C



What Is A Synthetic?

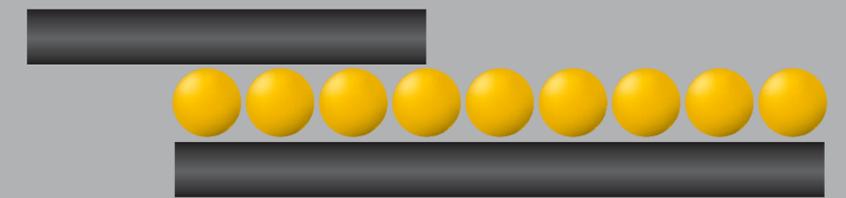
There are two basic types of lubricant available.
1. Conventional mineral oils which are the traditional kind, and still the most widely used
2. Synthetic lubricants which are steadily growing in popularity.

Both types are made from the same crude oil that comes out of the ground.
In simple terms, the difference is that synthetic oils are made using more advanced refining processes, and hence are of a

higher purity and quality than the conventional mineral oils. This is not only removes more of the impurities from the crude oil, it actually enables the individual molecules making up the oil to be tailored more closely to the

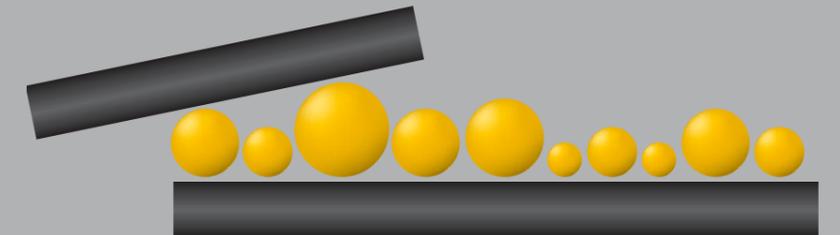
demands of modern engines. The "made to measure" molecules provide much higher levels of protection and all round performance.

Synthetics



More uniform molecules = less friction

Conventional



Inconsistent molecule size = more friction

What's So Good About Synthetic Lubricants?

Synthetic oils have been developed specifically to cope with extreme conditions found within modern engines. In particular, they're much more free-flowing than traditional mineral oils. The biggest benefit of this is greatly increased engine protection. When an engine is first started, a mineral oil takes some time to circulate, allowing friction between un-lubricated parts to cause

wear. In contrast, a synthetic lubricant starts circulating straight away, protecting every moving part within the engine. Synthetic oils can also significantly improve fuel economy. During the warm up period of a typical car journey, mineral oils are thicker and slower moving, making the engine less efficient and more thirsty.

Because synthetics get to work much quicker, the engine reaches peak operating efficiency that much sooner. Another advantage of synthetics is that they're cleaner and "greener" – helping to cut engine emissions when compared to conventional oils.

Conventional oils also contain much greater amounts of impurities, such as sulfur,

reactive and unstable hydrocarbons, and other undesirable contaminants that cannot be completely removed by conventional refining of crude oil.

In all these important respects, synthetic lubricants easily outperform mineral oils.

Attribute of Synthetic Basestock	Feature	Benefit
Higher Viscosity Index	Prevents oil becoming too thick at low temperatures and too thin at high temperatures	Reduces engine wear, especially at temperature extremes
Low Temperature Performance	Keeps oil flow at starting up	Oil reaches critical engine parts more quickly to reduce engine wear
Lower Volatility	Reduces oil burn off	Reduces oil consumption and need for frequent top-off
Lower Traction	Due to the more consistent molecular structure of synthetics, there is less friction within the fluid	Leads to greater efficiency and lower oil temperatures
Increased Oxidative Stability	Resists breakdown and attack from oxygen molecules	Slows down the rate of oil thickening and minimizes engine deposits and varnish

Discover the Mobil 1 Difference

Unrivalled Product Performance:

The high performance synthetic fluids that are used in Mobil 1 are just one of the reasons for unrivalled product performance. Here's what else we do to bring you consistently superior products:

- We have over three decades of synthetic research experience.
- We test our formulations to the extreme to ensure they'll provide the performance you can depend on.
- Our Mobil 1 formulations are proprietary and exclusive.
- Mobil 1 is chosen by more OEMs than any other oil brand in the world.
- We consistently bring new innovations to the market to meet the needs of modern engines.

Discover the Mobil 1 Difference

Mobil 1 with SuperSyn uses approximately 20 different components from around the world to make each Mobil 1 product.

Mobil 1 is always formulated with high performance base stocks, designed to provide optimum low and high

temperature protection in each viscosity grade. Our advanced synthetic fluids are expertly combined to enhance high temperature

cleanliness and anti-wear performance.



Mobil 1: Proof of Performance
We test our formulations to the extreme to ensure they'll provide the best performance.



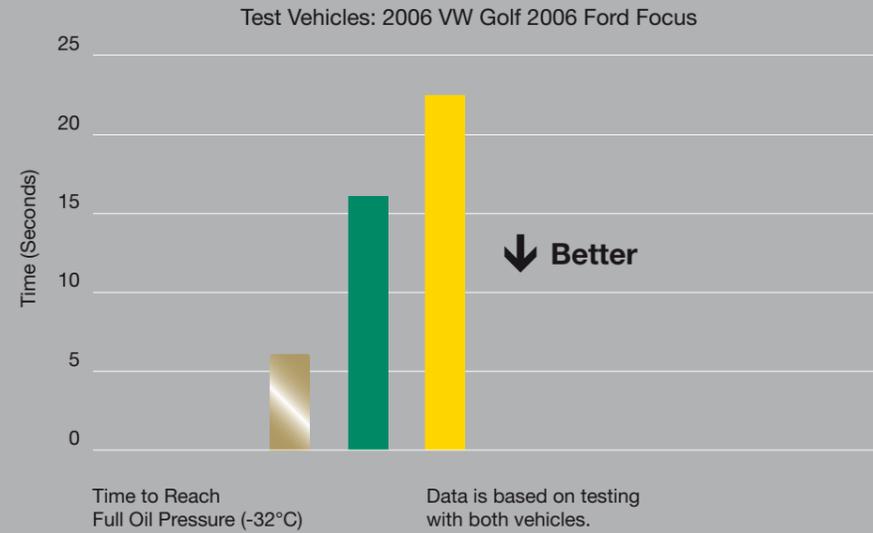
Mobil 1: Proof Of Performance

Cold Temperature Performance

In cold weather, if the oil is not pumped quickly, the engine may take longer to fire, and it will take longer for the engine to achieve full oil pressure. The test simulates low temperature pumpability and cold starting. This can result in poor lubrication and a higher rate of

engine wear. Vehicle engines are filled with test oil, then parked overnight in a cold chamber. In the morning, the ignition key is turned and the total time taken to reach full oil pressure at the furthest point in the engine is recorded.

The use of Mobil 1 enabled the engine to achieve full oil pressure up to 15 seconds quicker than some other oils we tested.

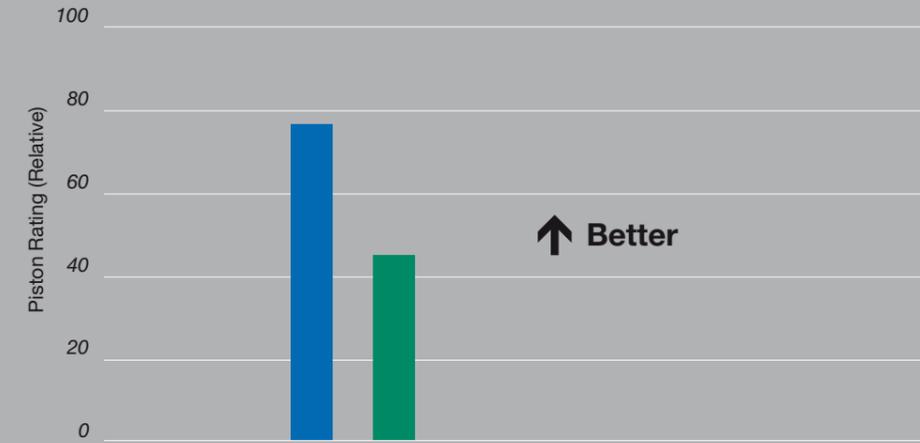


Piston Cleanliness

Some of the engine tests we run simulate extremely severe conditions. This particular engine test measures oil thickening and piston deposits

in simulated high speed driving in very hot weather. Oil temperature reached 150°C for 100 hours.

Mobil 1 can help keep your engine cleaner under high temperature conditions.



Piston Cleanliness



Mobil 1



Market General Fully Synthetic

Deposit Control

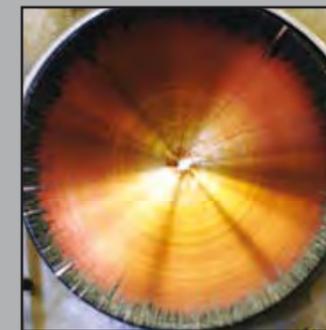
Oils of lower oxidative and thermal stability will cause greater deposit formation. As piston deposits increase, engine efficiency decreases. The test simulates high temperature piston deposit formation. The test oil is

heated to 285°C and directed onto a rapidly spinning (2,500 rpm) aluminum disc which is heated to 330°C. The test duration is 3 hours. At the end of test, the oil is assigned a cleanliness merit rating out of 100.

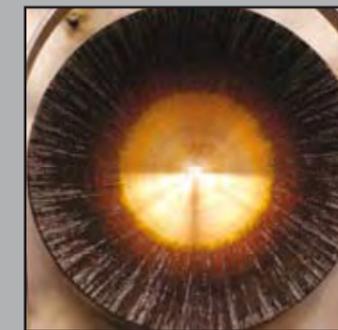
Mobil 1 better resists high temperature deposit formation than some other leading fully synthetic and semi-synthetic oils.



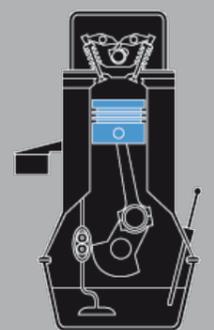
Mobil 1 0W-40
Rating = 90 / 100



Market General Fully Synthetic
Rating = 63 / 100



Market General Semi Synthetic
Rating = 49 / 100



Relevant Part of Engine: Pistons

- Mobil 1 0W-40
- Market General Fully Synthetic 5W-40
- Market General Semi-Synthetic 10W-40

- Mobil 1 0W-40
- Market General Fully Synthetic 5W-40

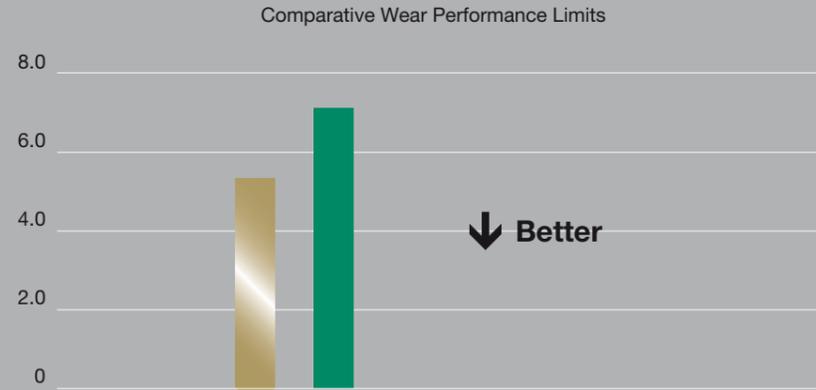
Mobil 1: Proof Of Performance

Improved Wear Performance

Oils meeting higher performance specification such as MB 229.5 offer improved wear protection. Reduced levels of wear ensure a healthier engine and longer engine life. Certain engine oil specifications require a

minimum passing wear requirement to be achieved. More demanding specifications set tougher limits (e.g. the Mercedes-Benz specification system uses tiered wear limits for certain engine tests).

Mobil 1 is designed to offer improved wear protection.



Relevant Part of Engine: Cylinder

Get The Sludge Out

To test* the cleaning power of Mobil 1, researchers tested a European performance vehicle and an American vehicle that had been run with conventional oil, then switched to Mobil 1. After 14,000 miles of driving with Mobil 1 at the recommended oil drain interval, the European vehicle returned to near new levels of cleanliness. The American

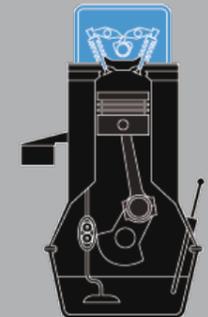
vehicle experienced even greater improvements from Mobil 1. After the equivalent of tens of thousands of miles of sludge build up, the camshaft hold downs were many times cleaner after regular oil change intervals with Mobil 1. The rocker covers were also much cleaner after running Mobil 1.

Photographs demonstrate dramatic visual cleanliness improvement after 21,000 miles. Mobil 1 can offer exceptional cleaning power for dirty engines.

American Vehicle Results



Before



Relevant Part of Engine: Top Deck



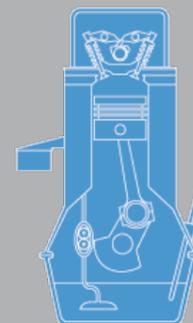
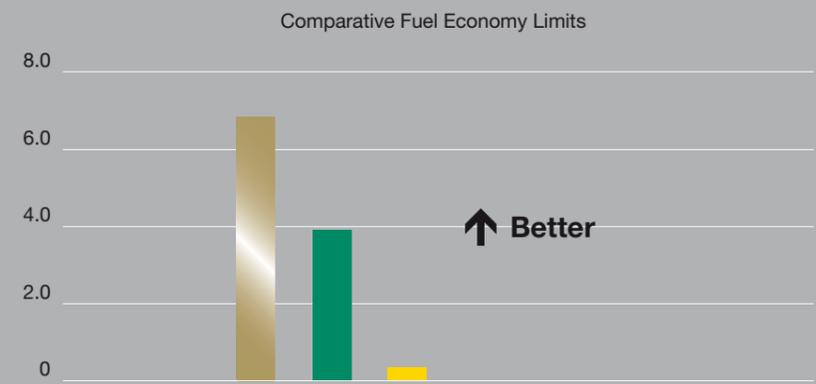
After

Improved Fuel Economy Performance

Oils meeting the toughest specifications such as MB 229.5 must provide improved fuel economy compared to less stringent specifications such as MB 229.1. Certain engine oil specifications require a fuel economy test

limit to be achieved in order to meet the requirements of that specification. More demanding specifications set tougher limits (e.g. the Mercedes-Benz specification system uses tiered fuel economy limits).

Mobil 1 0W-40 is designed to offer improved fuel economy.



Relevant Part of Engine: Cylinder

- Mobil 1 0W-40
- Market General Fully Synthetic 5W-40
- Market General Semi-Synthetic 10W-40

*Testing done in a controlled environment

What About Mobil 1's Proof Of Performance Outside The Laboratory?

But the proof doesn't stop there. We continually test our formulations in the real world, pushing vehicles filled with Mobil 1 to extremes to ensure they provide the performance you can depend on.

In 1990, Mobil conducted an extraordinary experiment with Mobil 1 - the Million Miles Test. At Mobil's research center in the United States, a new BMW 325i was filled with Mobil 1, and then run continuously day and night, for the next four years, stopping only for routine maintenance and servicing.

After the equivalent of a million miles of hard driving, the engine was stripped and examined. They couldn't find any sign of significant wear. Not only was the engine still in excellent working condition, most parts were still within BMW's tolerance for new.

In 2003, nine volunteers from the Drive Around the World Expedition began a 16-month intercontinental journey. They traveled 28,000 miles, before changing the engine oil. They endured more dust in a day than most cars see in a year & temperature extremes.

Ranging from 53° Celsius in the Mojave Desert, to -50° Celsius in Siberia. Without Mobil 1 motor oil, the vehicles wouldn't have been able to stand up to the extremes.

In 2006, the world's fastest UTE (HSV Z Series Maloo R8 UTE) set off from Melbourne and endured a challenging 37,000 km trek around Australia. They traveled on all kinds of roads for 6 months without a single oil change. On the completion of the journey the engine was inspected and found clean as a whistle.

In short, most synthetic oils can provide a high level of engine protection. But Mobil 1 has continually proved it can keep your engine performing 'like new' in even the most demanding conditions.

Mobil 1 Is Chosen By More Car Builders Than Any Other Oil Brand In The World.

All these manufacturers have extremely demanding engine oil specifications. Mobil 1 meets and often exceeds these standards, making it the factory-fill lubricant of choice.

- Acura RDX
- Aston Martin
- Bentley Vehicles
- Cadillac CTS, CTS-V, Escalade, XLR, XLR-V, SRX and STS and STS-V
- Chevrolet Corvette C6 and Z06
- Chevrolet TrailBlazer SS
- Chrysler 300C SRT-8
- Chevrolet Cobalt SS
- Dodge Charger SRT-8, and Magnum SRT-8
- Holden Special Vehicles
- Jeep Grand Cherokee SRT-8
- Mercedes-AMG Vehicles
- Mercedes-Benz SLR McLaren
- Mitsubishi Evolution
- Nissan GT-R
- Pontiac Solstice GXP
- All Porsche Vehicles
- Saturn Ion Red Line and Saturn Sky Red Line
- Dodge Viper



Frequently Asked Questions

1. What's the difference between a fully synthetic and a semi-synthetic engine oil?

All engine oils are made up of base oils and additives. Fully synthetic engine oils contain 100% non-conventional, high-performance fluids. Semi-synthetic oils (also called "blends") contain a smaller percentage of these high performance fluids in combination with conventional oil. Mobil 1 is a fully synthetic motor oil.

2. What makes synthetic engine oil superior to conventional engine oil?

The performance of synthetic oils, and in particular Mobil 1, is more robust, especially in terms of low temperature pumping and flow, and high temperature stability and protection against deposits. These attributes translate directly into less engine wear and longer engine life. Conventional oils also contain much greater amounts of impurities, such as sulfur, reactive and unstable hydrocarbons, and other undesirable contaminants that cannot be completely removed by conventional refining of crude oil.

3. Is it true that new engines need break-in periods using conventional engine oil?

That is a myth. In the past, engine break-in was necessary to remove any metal flashing (called swarf) or abrasive material left inside the engine after machining, as well as to allow the valves and rings to "seat" properly. Today's engines are built with much tighter tolerances, improved machining and under cleaner conditions compared to the engines of 10 or 20 years ago. Current engine manufacturing technology does not require a break-in period using petroleum-based engine oils. In fact, Mobil 1 is chosen as the standard factory fill for many leading vehicle manufacturers such as Porsche, Mercedes Benz, Cadillac, Aston Martin and many more. So Mobil 1 is often used in a car, even before you drive it off the showroom floor.

4. Is it okay to mix conventional oil with Mobil 1?

Yes, Mobil 1 is fully compatible with conventional engine oils, semi-synthetic engine oils and other synthetic engine oils should it be necessary to mix them. However, the superior performance of Mobil 1 will be reduced by diluting it.

5. Is Mobil 1 suited to "stop-start" driving?

If most of your driving consists of short journeys like the quick trip to work, the school run, or down to the stores, your engine hardly has time to warm up before it is turned off again. So to save engine wear, you need outstanding cold start protection. In tests, it's been proved time and again that Mobil 1 still flows freely at temperatures as low as negative 50 deg C and on start up, it can reach the moving parts of the engine 15 seconds faster than most conventional oils.

6. Is Mobil 1 suited to long haul motorway driving?

If you often drive long distances at high speeds, your engine will get extremely hot and, needless to say, you need good fuel economy. The Million Miles Test & the Drive Around the World proves that no matter how long the journey, you can rely on Mobil 1 to keep your engine running more efficiently and performing at its peak - therefore using less fuel.

7. Is Mobil 1 suited to performance driving?

Tried and tested at the highest levels of motor sports, the World's Leading Synthetic Engine Oil is simply the only choice for car enthusiasts. If performance really matters to you, then you must be placing extreme demands upon your engine.

As the McLaren F1 team knows, using the right lubricant can make a significant difference in terms of increased power output. What's more, you'll enjoy the reassurance of knowing that your engine has the ultimate protection however hard you drive it.

8. What does "multigrade" refer to?

Multigrades are multi-viscosity oils that have been designed to perform over a wider range of temperatures than older 'monograde' oils. Multigrade oils are identified by two SAE (Society of Automotive Engineers) grade designations e.g. 0W-40. The lower number in front of the 'W' indicates the oil's viscosity in cold temperatures - the lower the number the better the oil's ability to flow. Similarly, the second part of the viscosity grade indicates the oil's viscosity in hot temperatures - the higher the number the thicker the oil film.

9. Can I use any of the Mobil 1 products in my vehicle, irrespective of its age?

Since every Mobil 1 product has been formulated to provide exceptional performance and protection, you could use any of our Mobil 1 products with confidence, whatever the age of your vehicle. However, you may not experience all the benefits that could be provided by using a product optimized for your particular age and design of engine. Always consult your owner's manual to check the recommended specification for your vehicle.

The Power Of Innovation



Today, after four decades of refining and expanding our innovative technology, Mobil 1 is the world's leading synthetic motor oil.

Forty years ago, researchers at Mobil faced a daunting challenge from the U.S. military. As planes returned to their aircraft carriers, cold in-flight temperatures froze the wheel-bearing grease in the landing gear, leading to bearing failure. Mobil devised a way of synthesizing grease that retained its lubricating characteristics over a wider range of temperatures than was possible with mineral-based grease.

In the late 1960s, Mobil developed synthetic engine oil that lubricated diesels powering oil rigs in Alaska at temperatures as low as -40°C. Mobil discovered that the innovative synthetic oils delivered advantages

in every engine aspect: longterm durability, fuel consumption, increased power, enhanced lubrication over wide temperature ranges and engine cleanliness. In 1974, Mobil 1 synthetic engine oil was born.

Originally released to safely enhance fuel-efficiency, later formulations aimed to provide protection over the widest range of temperatures (Mobil Extreme Formula 0W-30). Another improved engine wear protection and lowered phosphorus levels for extended catalytic converter life (Advanced Formula Mobil 1). Mobil 1 was reformulated in 2002 to contain the SuperSyn anti-wear system.

1973
Europe & Japan



1973
Germany & Austria



1974
USA



1983
USA, Canada & Mexico



1992
USA & Canada



1994-5
Mid-East



1996
Europe, Asia & Australia



1996
USA, Canada & Mexico



1997
Japan & Asia



1998
USA, Canada & Mexico



2002
Launched Mobil 1 SuperSyn



2008
Russia & Ukraine

