



Technical Data Sheet

QUAKER STATE® ULTIMATE DURABILITY™ FULL SYNTHETIC MOTOR OIL

Consistent Level of Protection Throughout The Life of The Oil for Wear Protection, Rust protection, Viscosity Retention, Oxidation, and Volatility.

PRODUCT DESCRIPTION

QUAKER STATE® ULTIMATE DURABILITY™ FULL SYNTHETIC MOTOR OIL, is specially formulated to protect today's sophisticated engines. These small modern engines produce more horsepower, have tighter tolerances and produce more heat than ever before.

Today's engines work harder and generate more heat than ever before. Increased heat can mean increased friction, and oxidation, which may ultimately rob your engine of performance. Increased heat can mean increased friction and oxidation, which could ultimately rob your engine of performance. QUAKER STATE® ULTIMATE DURABILITY™ FULL SYNTHETIC MOTOR OIL contains **Heat Activated Additives** – a unique formulation specifically designed to maintain wear protection and viscosity in high revving and extreme high heat conditions, including stop and go city driving. As your engine temperature increases, a heat-activated friction modifier, and anti-wear system kick in to maintain the oil's wear protect. This advanced protective layer helps reduce metal to metal friction. Special anti-oxidants also resists oxidation and thermal breakdown of the oil. In addition, the unique viscosity modifier system resists shearing to help maintain the proper viscosity.

APPLICATION

The unique properties of QUAKER STATE® ULTIMATE DURABILITY™ FULL SYNTHETIC MOTOR OIL are especially apparent in the following applications:

- Technologically advanced engines
- High performance engines
- Vehicles that are driven in very hot or cold weather

FEATURES

QUAKER STATE® ULTIMATE DURABILITY™ FULL SYNTHETIC MOTOR OIL has been tested through thousands of kilometres of tough city driving and it still passed certain industry standards for brand new oil for wear protection, rust protection and viscosity retention, oxidation and volatility. Specially formulation to resist wear and viscosity loss in severe driving conditions.



Benefits.

Wear Protection.

- No synthetic motor oil provides better wear protection*.

Oxidation Control.

- High resistance to oxidation, keeping the oil fresher for longer.

Oil Flow.

- Superior lubrication flow and pumpability at high and low temperature **.

Engine Cleanliness.

- Excellent protection against formation of sludge and other harmful deposits***.

Fuel Economy.

- QUAKER STATE® ULTIMATE DURABILITY™ FULL SYNTHETIC MOTOR OIL is formulated to meet the fuel economy requirements of the GF-5 Industry standard this brings more fuel economy than the previous standard.

*Sequence IVA wear test on 5W-30 engine oil.

** Comparison against Quaker State® Advanced Durability™ Conventional Motor Oil

***Sequence IIIG & VG tests on 5W-30 engine oil

APPLICATIONS INCLUDE

- SAE 5W-20 – Many current and recent OEM recommendations including many 2001 and later Ford and Honda, Chrysler, Nissan and Toyota applications.
- SAE 5W-30 – Many of the remaining US and Japanese vehicle recommendations including General Motors, Suzuki, Subaru.
- SAE 10W-30 – Several specialty and truck applications for different manufacturers. This was the predominant grade of oil in the mid-1990s and is still recommended for some higher temperature applications.
- SAE 5W-50 – May be recommended for some performance and older vehicles and in some higher temperature applications.



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SPECIFICATIONS & APPROVALS

- North American warranty requirements for U.S., European and Japanese cars and light trucks with gasoline and gasoline turbo-charged engines where API SN and earlier API categories are specified (all grades).
 - Meets or exceeds the requirements of ILSAC GF-5, GF-4, and GF-3 (SAE 5W-20, SAE 5W-30 and SAE 10W-30)
 - Meets or exceeds the requirements for GM 6094M (SAE 5W-20, 5W-30, SAE 10W-30)
 - Meets or exceeds Ford WSS-M2C945-A/WSS-M2C930-A specifications (SAE 5W-20)
 - Meets or exceeds Ford WSS-M2C946-A/WSS-M2C929-A specifications (SAE 5W-30)
 - Meets or exceeds the Chrysler MS-6395S specification (SAE 5W-20, 5W-30, 10W-30)
 - Meets or exceeds the requirements for approval to GM 4718M (SAE 5W-30 and 10W-30)
 - Meets or exceeds the European ACEA A1 (SAE 5W-20), A5 (SAE 5W-30) and A3 (5W-50).
 - Meets GM dexos1™ specification for all GM vehicles (SAE 5W-30).
 - Meets Acura HTO-06 for turbo-charged applications (SAE 5W-30)

HEALTH & SAFETY

Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from your Quaker State representative.

PROTECT THE ENVIRONMENT

Take used oil to an authorized collection point. Do not discharge into drains, soil or water.



TYPICAL PHYSICAL AND CHEMICAL PROPERTIES
QUAKER STATE® ULTIMATE DURABILITY™ FULL SYNTHETIC MOTOR OIL.

TEST	METHOD				
Viscosity Grade.		5W-20	5W-30	5W-50	10W-30
API Service		SN	SN	SN	SN
ILSAC		GF-5	GF-5	-	GF-5
ACEA		A1-02	A5-02	A3-02	A5-02*
Gravity, °API	ASTM D-287	34.92	34.6	34.09	34.06
Specific Gravity @ 60°F(15.6°C)	ASTM D-287	0.8502	0.8516	0.8545	0.8547
Viscosity					
@ 40°C, cSt	ASTM D-445	44.05	57.46	100.20	61.72
@ 100°C, cSt	ASTM D-445	8.5	10.50	17.3	10.53
Viscosity Index	ASTM D-2270	170	175	190	161
Flash Point, °F	ASTM D-93	440	450	440	440
Pour Point, °C	ASTM D-97	-39	-39	-36	-36
CCS Viscosity, cP (°C)	ASTM D-5293	3840 (-30)	4580 (-30)	5500 (-30)	3460 (-25)
MRV Viscosity, cP (°C)	ASTM D-4684	11,000 (-35)	14,700 (-35)	25,600 (-35)	11,200 (-30)
HT/HS Viscosity, cP (°C)	ASTM D-4683	2.65	3.0	4.1	3.1
Noack Volatility, %	ASTM D-5800	12.3	12	12.5	10

* Meets engine protection requirements

These characteristics are typical. While future production will conform to Quaker State® specifications, variations in these characteristics may occur. The information contained herein is subject to change without notification.