

TITAN

High-tech protection for engines



**Engine oils for passenger cars
1/2015**

*LUBRICANTS.
TECHNOLOGY.
PEOPLE.*



The right high-tech engine oil for every engine!



The oil of the champions
of the 24h Race
Nürburgring 2013

2nd Place
24h Race
Nürburgring 2014

1st Place
12h Race
Abu Dhabi 2013

1st Place
24h Race
Dubai 2012 + 2013

TITAN engine oils are the result of the latest research and development by the world's largest independent lubricant specialist. Developed together with leading automobile manufacturers, tailored to satisfy the demands of today's high-tech engines: offering outstanding high-performance, fuel-economy and wear protection.

TITAN engine oils: Premium quality from the German automobile industry's leading lubricant OEM.

Made in Germany.



FUCHS was the only lubricant supplier presented with the Volkswagen Group Award 2014. Volkswagen recognized FUCHS for innovation, R&D, product quality and competent project management. Benefit from the outstanding experience of one of the leading Development-partners and factory-fillers to the German Auto-industry.

Benefit from FUCHS. www.fuchs-europe.de

TITAN
GT1 EVO
SAE 0W-20

Premium Performance Engine Oil with new XTL®-Technology in path-breaking viscosity class. Specially designed for highly stressed downsized engines with maximum power output.

TITAN
GT1 PRO FLEX
SAE 5W-30

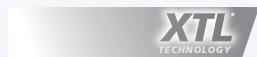
Premium Performance, extreme fuel-economy engine oil with new XTL®-Technology. Specially developed for BMW, Mercedes-Benz and Opel vehicles with exhaust after treatment and turbocharger.

TITAN
GT1 PRO C-3
SAE 5W-30

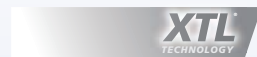
Premium Performance, extreme fuel-economy engine oil with new XTL®-Technology. Specially developed for BMW-, VW and Mercedes-Benz vehicles with exhaust after treatment and turbocharger.

TITAN
GT1
SAE 5W-40

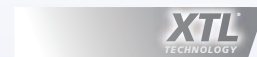
Premium Performance, fuel-economy engine oil with new XTL®-Technology. Specially developed for vehicles with exhaust after treatment and turbocharger.



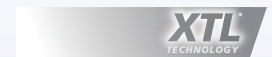
- + maximum fuel-saving potential and reduced CO₂ emissions.
- + excellent cold starting characteristics
- + outstanding performance reserves
- + 1. product according to the new BMW LONGLIFE-14 FE+



- + best cold starting characteristics
- + significantly lower fuel and oil consumption
- + improved ageing stability
- + outstanding performance reserves for modern vehicles with or without extended service intervals



- + best cold starting characteristics
- + significantly lower fuel and oil consumption
- + improved ageing stability
- + outstanding performance reserves for modern vehicles with or without extended service intervals
- + rationalisation brand for free car workshops



- + best cold starting characteristics
- + significantly lower fuel and oil consumption
- + improved ageing stability
- + outstanding performance reserves for advanced engines with or without extended service intervals
- + reduced evaporation loss



Specifications:
ACEA A1/B1

Approvals:
BMW LONGLIFE-14 FE+

FUCHS Recommendations:
TOYOTA
HONDA



Specifications:
ACEA C3
API SN/SM

Approvals:
BMW LONGLIFE-04
dexos2™ (GB2C0209075)
MB-APPROVAL 229.51 / 229.52
VW 502 00/ 505 00/ 505 01

FUCHS Recommendations:
FIAT 9.55535-S3
FORD M2C917-A
supersedes GM-LL-A-025
supersedes GM-LL-B-025



Specifications:
ACEA C3

Approvals:
BMW LONGLIFE-04
MB-APPROVAL 229.51
PORSCHE C30
VW 504 00/ 507 00

FUCHS Recommendations:
FIAT 9.55535-S3
FORD M2C917-A



Specifications:
ACEA C3
API SN/SM/CF
FORD M2C917-A

Approvals:
BMW LONGLIFE-04
MB-APPROVAL 226.5/ 229.31
PORSCHE A40
RENAULT RN0700/RN0710
VW 502 00/505 00/505 01

FUCHS Recommendations:
FIAT 9.55535-S2

TITAN
GT1 PRO C-1
SAE 5W-30

Premium Performance, extreme fuel-economy engine oil. Specially developed for vehicles with exhaust after treatment and turbocharger.

- + optimum formulation for modern cars and vans with or without extended service intervals
- + reduced cold starting characteristics wear
- + radically reduced contaminant emissions – a plus for the environment!



Specifications:
ACEA C1

Approvals:
–

FUCHS Recommendations:
JASO DL-1
FORD WSS-M2C934-B
MAZDA

TITAN
GT1 PRO C-2
SAE 5W-30

Premium Performance, extreme fuel-economy engine oil. Specially developed for PSA vehicles with exhaust after treatment and turbocharger.

- + optimum formulation for modern cars and vans with or without extended service intervals
- + reduced cold starting characteristics wear
- + radically reduced contaminant emissions – a plus for the environment



Specifications:
ACEA C2
API SN/SM/CF

Approvals:
PSA B71 2290

FUCHS Recommendations:
FIAT 9.55535-S1
HONDA
MAZDA
SUBARU
SUZUKI
TOYOTA

TITAN
GT1 PRO C-4
SAE 5W-30

Premium Performance, extreme fuel-economy engine oil. Specially for Renault vehicles with exhaust after treatment and turbocharger.

- + optimum formulation for modern cars and vans with or without extended service intervals
- + reduced cold starting characteristics wear
- + radically reduced contaminant emissions – a plus for the environment



Specifications:
ACEA C4

Approvals:
MB-APPROVAL 226.51
RENAULT RN0720

FUCHS Recommendations:
–

TITAN
GT1 PRO B-Tec
SAE 5W-30

Premium Performance, extreme fuel-economy engine oil with new XTL®-Technology. Specially for Mercedes-Diesel-Vehicles with exhaust after treatment and turbocharger.

- + optimum formulation for modern cars and vans with or without extended service intervals
- + optimum cold starting characteristics
- + lower oil consumption
- + minimized exhaust emissions



Specifications:
ACEA C2/C3

Approvals:
MB-APPROVAL 229.52

FUCHS Recommendations:
–

TITAN
Supersyn
LONGLIFE PLUS
SAE 0W-30

Ultra High Performance, extreme fuel-economy engine oil formulated with fully synthetic base oil for VW engines. Specially developed for VW Longlife Technology.

- + suitable for gasoline and diesel car engines with or without unit injector technology
- + highly stable lubricating film and thus outstanding lubrication at high temperatures such as in stop-and-go traffic in hot summers
- + excellent fuel economy and significantly reduced cold-start wear



Specifications:

–

Approvals:

VW 503 00/506 01

FUCHS Recommendations:

ACEA A5/B5
BMW LONGLIFE 01-FE
VW 506 00

TITAN
Supersyn
LONGLIFE
SAE 0W-30

Ultra High Performance, extreme fuel-economy engine oil for a variety of vehicles with or without extended service intervals.

- + excellent cold starting characteristics
- + lower oil consumption



Specifications:

ACEA A3/B4
API SL

Approvals:

MB-APPROVAL 229.5

FUCHS Recommendations:

BMW LONGLIFE-01
MAZDA
VW 502 00/505 00

TITAN
Supersyn
LONGLIFE
SAE 0W-40

Ultra High Performance, fuel-economy engine oil for a variety of vehicles with or without extended service intervals.

- + excellent cold starting characteristics
- + lower oil consumption



Specifications:

ACEA A3/B4
API SN

Approvals:

MB-APPROVAL 229.5
PORSCHE A40
VW 502 00/505 00

FUCHS Recommendations:

AMG
ASTON-MARTIN
BMW LONGLIFE-01
FORD M2C937-A

TITAN
Supersyn
LONGLIFE
SAE 5W-40

Ultra High Performance, fuel-economy engine oil for a variety of vehicles with or without extended service intervals.

- + good cold starting characteristics
- + lower oil consumption
- + high thermal stability



Specifications:

ACEA A3/B4
API SN/SM/CF

Approvals:

BMW LONGLIFE-01
MB-APPROVAL 226.5 / 229.5
PORSCHE A40
RENAULT RN0700/RN0710
VW 502 00/505 00

FUCHS Recommendations:

GM-LL-B-025
HYUNDAI
PSA B71 2296

TITAN
Supersyn F Eco-B
SAE 5W-20

Ultra High Performance, extreme fuel-economy engine oil for Ford vehicles with Eco-Boost gasoline engines. Optimum cold starting, lower oil consumption and minimized exhaust emissions.

- + good cold starting characteristics
- + minimal oil consumption

TITAN
Supersyn F Eco-DT
SAE 5W-30

Ultra High Performance, extreme fuel-economy engine oil for Ford vehicles with Dura-Torq-Diesel engines. Optimum cold starting, lower oil consumption and minimized exhaust emissions.

- + good cold starting characteristics
- + minimal oil consumption

TITAN
Supersyn
SAE 5W-40

Ultra High Performance, fuel-economy engine oil for a variety of vehicles with or without extended service intervals. Optimum cold starting, lower oil consumption and minimized exhaust emissions.

- + good cold starting characteristics
- + minimal oil consumption

TITAN
SYN MC
SAE 10W-40

Super High Performance, fuel-economy engine oil based on MC-synthesis for a variety of gasoline and diesel engines in passenger cars. Optimum cold starting, lower oil consumption and minimized exhaust emissions.

- + good cold starting characteristics
- + minimal oil consumption



Specifications:

ACEA A1/B1
API SN

Approvals:

FORD M2C948-B

FUCHS Recommendations:

CHRYSLER MS 6395
FORD M2C925-A
FORD M2C925-B



Specifications:

ACEA A5/B5
API SL/CF
FORD M2C913-C

Approvals:

FORD M2C913-D

FUCHS Recommendations:

ACEA A1/B1
CHRYSLER MS 6395
FORD M2C913-A / FORD M2C913-B
IVECO 18-1811
JAGUAR M2C913-B
RENAULT RN0700



Specifications:

ACEA A3/B4
API SN/SM/CF

Approvals:

MB-APPROVAL 229.3
PORSCHE A40
RENAULT RN0700/RN0710
VW 502 00/505 00

FUCHS Recommendations:

BMW LONGLIFE-98
FIAT 9.55535-H2/M2/N2/Z2
GM-LL-A-025
GM-LL-B-025



Specifications:

ACEA A3/B4
API SL/CF

Approvals:

MB-APPROVAL 229.1

FUCHS Recommendations:

BMW SPEZIAL
FIAT 9.55535-D2/G2
MAZDA
VW 500 00/505 00

How to find the right motor oil.

There are all sorts of motor oils available which fulfil all manner of specifications. This should explain what the most important motor oil specifications mean.

SAE: The viscosity of an motor oil is described by its SAE Grade (SAE = Society of Automotive Engineers). In the case of an SAE 0W-30 motor oil, the first number describes how thin the oil is at low temperatures. The smaller this number, the better the oil flows at low temperatures and the faster the oil reaches important bearings in the engine. The second figure describes the flowability of the oil at high temperatures.

ACEA: The ACEA engine oil specifications for gasoline and diesel engines differentiate between the Ax/Bx classifications and the Cx classifications with limits in the sulfated ash, phosphorus and sulfur contents.

- A1/B1** Category for Fuel Economy engine oils with especially low High Temperature High Shear viscosity. HTHS of 2.6 to 3.5 mPas applies to XW-20, 2.9 to 3.5 mPas for all others. Corresponds to the old A1 and B1 specifications with some new engine tests. High content of Sulfated Ash.
- A3/B3** Category for high-performance and Fuel Economy engine oils. Exceeds ACEA A1/B1 with regard to Noack (evaporation losses), and sludge prevention. Not for DI-Diesel. Extended oil change intervals possible. High content of Sulfated Ash.
- A3/B4** Same as A3/B3 but also for direct injection diesel engines. High content of Sulfated Ash.
- A5/B5** Category for high-performance engine oils. For Gasoline and TDI engines with Fuel Economy Performance, with reduced HTHS (2.9 to 3.5). Extended oil change intervals possible. High content of Sulfated Ash.
- C1** Largely based on the ACEA A5/B5. Strict limitation of SAPS content. Low HTHS viscosity of >2.9 mPas. Maximum FE>3%.
- C2** Same as C1 but with higher Sulphated Ash content permissible (as with C3 <0.8%). High FE>2.5%.
- C3** Same as C2 expect for HTHS >3.5% and reduced Fuel Economy performance >1%. Low Minimum-TBN.
- C4** Sulphated Ash content as C1, HTHS viscosity and FE as C3. Low Minimum-TBN.

The **API** differentiates between a class for gasoline engines (S = service oils) and a class for diesel engines (C = commercial).

- API SN** For all automotive engines currently in use. Introduced in 2010. SN is designed to provide improved high temperature, deposit protection for pistons, more stringent sludge control, and seal compatibility. Matches ILSAC GF-5 by combining API SN performance with improved fuel economy, turbocharger protection, emission control system compatibility, and protection of engines operation on ethanolcontaining fuels up to E85.

- API SM** Introduced in 2004. Successor of API SL with additional requirements like lower SAPS-content, energy conserving and emission system protection. Precondition for ILSAC GF-4. Valid from 10/2004 for engines until 2010.
- API SL** Successor of API SJ and precondition for ILSAC GF-3. Valid from 2001 for engines until 2001.
- API SJ** Successor of API SH with additional requirements concerning evaporation loss. Valid from 10/1996 for engines until 2001.
- API CJ-4** Introduced in 2006. Designed to meet 2007 model year-highway exhaust emissionstandards. For use in all applications with diesel fuels ranging in sulphur content up to 500 ppm (0.05% by weights) CJ-4 oils are effective at sustaining emission control system durability.
- API CI-4** Introduced in 2002. Designed to meet 2004 exhaust emission standards implemented in 2002. CI-4 oils are formulated to sustain engine durability where exhaust gas recirculation (EGR) is used and are intended for use with diesel fuels ranging in sulphur content up to 0.5% weight.
- API CH-4** Introduced in 1998. Compounded for use with diesel fuels ranging in sulphur content up to 0.5% weight. Replaces CG-4.

Approvals by manufacturers.

Apart from the specifications listed above, a number of manufacturers demand their own limits and engine tests.

BMW-specification	Application area
BMW LONGLIFE-98 (list closed)	Oils for special gasoline engines from 1998 on.
BMW LONGLIFE-01	Oils for special gasoline engines from 09/2001 on.
BMW LONGLIFE-01FE	Oils for special gasoline engines from 2001 on.
BMW LONGLIFE-04	Quality same as Longlife 01 expect with lower HTHS for better fuel economy. For gasoline engines and diesel engines with filters from 2004 on.
BMW LONGLIFE-14 FE+	For N20 and Bx8 BMW Otto engines from MY 2014. Engine oil with lower HTHS for greatest fuel economy.
OPEL-specification	Application area
GM-LL-A-025	Oils for gasoline car engines, Fuel Economy.
GM-LL-B-025	Oils for diesel car engines, Fuel Economy.
dexos2™	Prospective GM specification for the aftermarket for gasoline and diesel engines

MB-specification	Application area
MB-APPROVAL 229.1	Engine oil for car gasoline and diesel engines. More stringent than ACEA A2/A3 and B2/B3.
MB-APPROVAL 229.3	Engine oils for cars with extended oil change intervals (30,000 km).
MB-APPROVAL 229.31	Engine oils for cars with exhaust gas after treatment. Low ash content required.
MB-APPROVAL 229.5	Fuel Economy engine oil for even longer oil change intervals (vehicles from 2002 on) with service indicators. Special, stricter requirements than ACEA A3/B3. For use in all car gasoline and diesel engines. This oil also complies with 229.1 and 229.3.
MB-APPROVAL 229.51	Very high performance oil for engines with diesel particle filters and extended oil change intervals. Better fuel economy than MB 229.5.
MB-APPROVAL 229.52	Especially for the new BlueTec engines (OM 642; emission standard EURO 6). Highest requirements on oxidation stability and fuel economy. Backwards compatible with 229.51.
MB-APPROVAL 226.5	Engine oil for cars, especially for four-cylinder gasoline engines based on RENAULT technology. Meets ACEA A3/B4.
MB-APPROVAL 226.51	Engine oil for cars, especially developed for the diesel engine OM 607 (only in W176 and VAN-engines (Citan)) based on Renault technology. Meets ACEA C4.

FORD-specification	Application area
M2C 913-C	Introduced in 2009. Backwards compatible with M2C 913-A and -B with fuel economy. Meets ACEA A5/B5.
M2C 913-D	For all diesel engines, especially developed for the 2,2 L-I-Diesel-Duratorq-TDCI-diesel engine (built-in Ford Transit 2012.75 (04/2012 –) or Ranger) except Ka 2009 (08/2008 –) Galaxy 1995 (02/1995 – 03/2000), Galaxy 2000.75 (04/2000 – 02/2006) with 1,9 L diesel engine. Introduced in 2011.
M2C 917-A	Equates to VW specification 505.01 and meets ACEA A3/B4/C3. For diesel and gasoline engines of series Ford Ka.
M2C 925-A	Service oil for gasoline and diesel engines. Used in Jaguar and Landrover models. Similar to ACEA A1/B1 ACEA A5/B5 and ILSAC GF-3.
M2C 925-B	For all diesel and gasoline engines except series Ford ka. Viscosity SAE 5W-20. Meets ACEA A5/B5. If not available, M2C 913-B may be used instead (viscosity 5W-30).
M2C 934-B	For diesel and gasoline engines with exhaust after treatment. Exceeds ACEA C1. Viscosity SAE 5W-30.
M2C 937-A	Viscosity SAE 0W-40, special for Ford Focus RS.
M2C 948-B	Developed and required for the 1.0 and 1.6 L EcoBoost R engines (expect Ford Ka, Focus ST and Focus RS).

PEUGEOT-specification	Application area
PSA B71 2290	Mid SAPS engine oil with lower HTHS viscosity for vehicles fitted with particle filters. For service use aligned to ACEA C2. SAE 5W-30.

PSA B71 2296	HighSAPS engine oil for service use (PSA level 3) aligned to ACEA A3/B4 or A5/B5 performance, therefore also with lower HTHS viscosity. SAE xW-30/40.
PSA B71 2312	LowSAPS engine oil for service use aligned to ACEA C1/C2. SAE 0W-30.

PORSCHE-specification	Application area
A40	For all Porsche gasoline engines (SAE 0W-40, 5W-40/50) and VW gasoline engines without Longlife-Service (SAE 0W-40, 5W-40).
C30	For all gasoline engines of VW make with and without Longlife-Service and for all VW-Diesel engines (always SAE 5W-30). Identical to VW 504 00 / 507 00.

RENAULT-specification	Application area
RN0700	For gasoline engines, cooresponds to ACEA A3 B4 and A5/B5.
RN0710	For diesel engines without particle filters, SAE 5W-40, corresponds to ACEA A3/B4.
RN0720	For diesel engines with particle filters, SAE 0/5W-30/40, corresponds to ACEA C4. An additional RENAULT engine test is required.

VW-specification	Application area
VW 502 00	Low viscosity oils for gasoline engines and difficult operating conditions. Normal service intervals. Replaces VW 501 01 and VW 500 00.
VW 503 00	New specification for gasoline car engines with extended service intervals (30,000 km or 2 years). Surpasses the requirements of 502 00. (HTHS 2.9 mPas). Meets ACEA A1. SAE 0W/5W-30.
VW 503 01	Specification for turbocharged gasoline car engines with extended service intervals, e.g. Audi S3, TT. (HTHS > 3.5 mPas).
VW 504 00	For all gasoline engines with extended service intervals. Replaces VW 503 00 and 503 01.
VW 505 00	All-season motor oils for diesel engines with or without turbo charging. Normal service intervals.
VW 505 01	All-season engine oils especially for Unit Pump diesel engines. Normal service intervals. Meets ACEA B4
VW 506 00	Specification for diesel engines with extended service intervals (50,000 km or 2 years), (HTHS 2.9 mPas)
VW 506 01	Specification for Unit Pump diesel engines with extended service intervals.
VW 507 00	For almost all diesel engines with extendet service intervals, unitary injector pumps and Unit Pumps. Retrospectively compatible back to 2000. Excludes V10 and R5 engines built before 2006.

The information contained in this product information is based on the experience and know-how of FUCHS EUROPE SCHMIERSTOFFE GMBH in the development and manufacturing of lubricants and represents the current state-of-the-art. The performance of our products can be influenced by a series of factors, especially the specific use, the method of application, the operational environment, component pre-treatment, possible external contamination, etc. For this reason, universally-valid statements about the function of our products are not possible. The information given in this product information represents general, non-binding guidelines. No warranty expressed or implied is given concerning the properties of the product or its suitability for any given application.

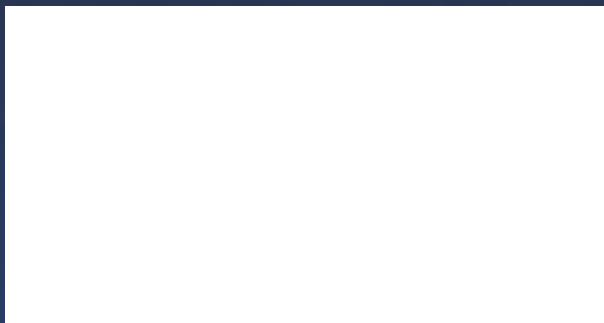
We therefore recommend that you consult a FUCHS EUROPE SCHMIERSTOFFE GMBH application engineer to discuss application conditions and the performance criteria of the products before the product is used. It is the responsibility of the user to test the functional suitability of the product and to use it with the corresponding care.

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