

TITAN

High-tech safety for gearboxes



Gear oils for passenger cars and commercial vehicles

LUBRICANTS.
TECHNOLOGY.
PEOPLE.



Gear oils for passenger cars.

For problem-free operation over the entire life of the vehicle, passenger car gearboxes today need high-performance lubricants which protect against wear and significantly increase shifting comfort. In addition, extending oil change intervals up to the life of the vehicle make considerable demands on the quality of the oils.

As the long-term development partner of the world's leading gearbox manufacturers, we operate at the leading edge of technology.

*For quality and reliability.
Use FUCHS.*

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 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.

Our products undergo continuous improvement. We therefore retain the right to change our product program, the products, and their manufacturing processes as well as all details of our product information sheets at any time and without warning. With the publication of this product information, all previous editions cease to be valid.

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**TITAN SINTOFLUID –
for passenger car
manual gearboxes**

**TITAN SINTOPOID –
for passenger car
differentials**

TITAN **SINTOFLUID FE** **SAE 75W**

Premium, low viscosity, gear oil offering increased gearbox efficiency. Reduces fuel consumption and offers excellent low temperature performance. Suitable as "fill for life" fluid according to manufacturer recommendations.

Specifications*:

API GL-4

Approvals*:

–

FUCHS recommendations:

VW TL 521 71

(G 052 171 A1/A2)

VW TL 521 78 (G 052 178 A2),

VW TL 525 12 (G 052 512 A2),

VW TL 525 27 (G 052 527 A2),

VW TL 726

(G 052 726 A2/ G 055 726 A2/

G 060 726 A2/ G 070 726 A2)



TITAN **SINTOFLUID** **SAE 75W-80**

Premium gear oil for passenger cars offering good gearbox efficiency. Good cold start behaviour. Suitable as fill-for-life fluid according to manufacturer.

Specifications*:

API GL-5

Approvals*:

–

FUCHS recommendations:

MIL-L-2105 D

ALFA ROMEO

BMW 83 22 0 309 031

BMW 83 22 0 403 247

BMW 83 22 7 533 818

BMW 2300 1434 404

BMW 2300 7533 513

BMW 2300 7533 818

CITROËN

FIAT

FORD M2C200-C/ C2/ C3

LANCIA

OPEL 19 40 182,

19 40 757, 19 40 768, 19 40 776

PEUGEOT

RENAULT

VOLVO 97308

VW 501 50

(G 005 000 05/ G 005 000/

G 005 000 20/ G 052 911 A1/A2)

TITAN

SINTOPOID FE SAE 75W-85

Premium, low viscosity, gear oil offering increased gearbox efficiency formulated from fully-synthetic base oils. Reduces fuel consumption and offers excellent low temperature performance. Suitable as "fill for life" fluid according to manufacturer recommendations.

Specifications*:

API GL-5

Approvals*:

MB-APPROVAL 235.7

ZF TE-ML 18

FUCHS recommendations:

ALFA ROMEO

BMW

FIAT

LANCIA

VW TL 521 45-X (G 052 145 A1)

VW TL 521 90 (G 052 190 A2/
G 055 190 A2)



TITAN

SINTOPOID SAE 75W-90

Premium gear oil for passenger cars offering good gearbox efficiency. Suitable for high-offset hypoid drives. Suitable as fill-for-life fluid according to manufacturer.

Specifications*:

API GL-5

Approvals*:

–

FUCHS recommendations:

MIL-L-2105 D

BMW

VW TL 521 45-Y

(G 052 145 A2)

TITAN

SINTOPOID LS SAE 75W-90 / 75W-140

Premium gear oils for axles, transfer boxes, formulated from fully synthetic base oils. Both offer excellent low temperature performance. Suitable for differentials with or without limited slip. SINTOPOID LS 75W-90 can be used as a rationalisation grade due to its wide specification profile.

Specifications*:

SINTOPOID LS

SAE 75W-90:

API GL-4/-5/-5 incl. LS

SINTOPOID LS

SAE 75W-140:

API GL-5

Approvals*:

–

FUCHS recommendations:

SINTOPOID LS

SAE 75W-90:

VW G50 / G51

SINTOPOID LS

SAE 75W-140:

BMW 83 22 2 282 583, 83 22 9 407 870

CHRYSLER MS-8985

FORD M2C192-A, GM 12346140

JOHN DEERE JDM J 11 G

SCANIA STO 1:0

***Gear oils
for mixed fleets.***



FUCHS has developed special gear oils for use in cars, vans and trucks.

Reduces the chance of incorrect filling.

Reduces stock levels and complexity.

Ultimately reduces operating costs.

Choose FUCHS rationalisation products.



Reduce your operating costs: By using mixed fleet products.



FUCHS

TITAN

SUPERGEAR MC

SAE 80W-90

Super high-performance gear oil based on MC-synthesis technology for extended oil change intervals.

Specifications*:

API GL-4/GL-5
SCANIA STO 1:0

Approvals*:

MAN 341 TYPE E2
MAN 341 TYPE Z2
MAN 341 TYPE M2
MB-APPROVAL 235.0
ZF TE-ML 02B, 05A, 12L, 12M,
16B, 17B, 19B, 21A

FUCHS recommendations:

CASE MS 1316
FORD M2C197-A
JOHN DEERE JDM J 11 E
MAN M3343 TYPE M
NH 520 A
SDFG OP 1705
STEYR B-101
VOLVO 97310
ZF TE-ML 07, 08

TITAN

SUPERGEAR MC

SAE 80W-140

Super high-performance gear oil based on MC-synthesis technology for extended oil change intervals.

Specifications*:

API GL-4/GL-5
SCANIA STO 1:0

Approvals*:

–

FUCHS recommendations:

JOHN DEERE JDM J 11 E
OPEL 19 42 386
RENAULT VI
VOLVO 97310
ZF TE-ML 08

TITAN

GEAR LS

SAE 90

High-performance LS (Limited Slip) hypoid gear oil for axles in commercial vehicles and passenger cars with or without limited slip differentials.

Specifications*:

API GL-5

Approvals*:

ZF TE-ML 05C, 12C, 16E, 21C

FUCHS recommendations:

MIL-L-2105 D
FORD M2C104-A
JOHN DEERE JDM J 11 F
LIEBHERR
NH 520 B
VOLVO 97310

TITAN

GEAR MP

SAE 80

High-performance gear oil for synchronized and non-synchronized manual gearboxes as well as auxiliary drives, axles and differentials in certain commercial vehicles and passenger cars.

Specifications*:

API GL-4

Approvals*:

MAN 341 TYPE E1

MAN 341 TYPE Z2

MB-APPROVAL 235.1

ZF TE-ML 17A

FUCHS recommendations:

BMW 81 22 9 407 052

BMW 81 22 9 407 053

EATON

FORD M2C9008-A

VW TL 726

ZF TE-ML 08

TITAN

GEAR MP

SAE 90

High-performance gear oil for synchronized and non-synchronized manual gearboxes as well as auxiliary drives, axles and differentials in certain commercial vehicles and passenger cars.

Specifications*:

API GL-4

Approvals*:

–

FUCHS recommendations:

EATON

FULLER

MB 235.1

MAN 341 TYPE E1, Z1

ZF TE-ML 02A, 16A, 17A, 19A

TITAN

GEAR HYP

SAE 90

High-performance gear oil for highly-stressed differentials in commercial vehicles and passenger cars.

Specifications*:

API GL-5

Approvals*:

MAN 342 TYPE M1

MB-APPROVAL 235.0

ZF TE-ML, 16C, 17B, 19B, 21A

FUCHS recommendations:

FORD M2C9102-A

JOHN DEERE JDM J 11 E

OPEL 19 42 387

VOLVO 97310

VW TL 727

ZF TE-ML 07, 08

Gear oils for trucks.



Commercial vehicle gearboxes are subject to all sorts of loads. Urban driving puts different demands on the gearbox and its oil than long-distance haulage. Perfect and reliable operation of is a must - down time can be very expensive and inconvenient - the gear oil must be perfectly matched to the gearbox and axles and its performance requirements. Make no compromises. Rely on the leading OEM supplier, FUCHS.



***Heavy-duty gear oils for
heavy-duty applications.
Never make compromises
in the commercial sector.***

TITAN

**CYTRAC SL
SAE 75W-90**

Premium gear oil for highly-stressed hypoid axles in commercial vehicles formulated with fully-synthetic base oils. Developed for extended oil change intervals in commercial vehicle axle drives.

Specifications*:

API GL-5
SCANIA STO 1:0

Approvals*:

MAN 342 TYPE S1

FUCHS recommendations:

JOHN DEERE JDM J 11 E/G
VOLVO 97312
ZF TE-ML 07, 08, 05B, 12B, 16F, 17B
MB 235.8

TITAN

**CYTRAC MB SYNTH
SAE 75W-90**

Premium gear oil for extended drain intervals in commercial vehicles, specially developed for Mercedes-Benz Actros. Formulated with fully-synthetic base oils. Reduces fuel consumption by improving gearbox efficiency. Suitable for extended oil change intervals.

Specifications*:

API GL-4

Approvals*:

MAN 341 TYPE MB
MB-APPROVAL 235.11

FUCHS recommendations:

ZF TE-ML 08

TITAN

**CYTRAC MAN SYNTH
SAE 75W-80**

Premium gear oil for extended drain intervals in commercial vehicles manual gearboxes, specially developed for manual and automatic ZF-gearboxes. Formulated with fully-synthetic base oils. Reduces fuel consumption by improving gearbox efficiency. Suitable for extended oil change intervals.

Specifications*:

API GL-4

Approvals*:

MAN 341 TYPE Z4
ZF TE-ML 01L 02L, 16K

FUCHS recommendations:

DAF
EATON
IVECO
RENAULT
VOLVO 97307

TITAN

**CYTRAC LD
SAE 75W-80**

Ultra high-performance gear oil for extended oil change intervals in commercial vehicles fitted with integral retarders or supplementary retarders.

Specifications*:

API GL-4

Approvals*:

EATON

MAN 341 TYPE E3

FUCHS recommendations:

DAF

MAN 341 TYPE Z3

VOLVO 97305

ZF TE-ML 02D, 08

TITAN

**CYTRAC HSY
SAE 75W-90**

Ultra high-performance gear oil for commercial vehicle manual transmissions and axle drives formulated with fully-synthetic base oils.

Specifications*:

API GL-4/GL-5

Approvals*:

ZF TE-ML 05B, 12L, 12N, 16F,
17B, 19C, 21B

FUCHS recommendations:

DAF

MAN 341 TYPE Z2/E3

MAN 342 TYPE M3

MAN M 3343 TYPE S

JOHN DEERE JDM J 11 E/G

SCANIA STO 1:0

ZF TE-ML 07

TITAN

**GEAR HYP LD
SAE 80W-90**

Super high-performance axle oil specially developed for Mercedes-Benz commercial vehicles. Offering enhanced thermal stability and fuel-economy potential.

Specifications*:

API GL-5

API MT-1

Approvals*:

MAN 342 TYPE M3

MB-APPROVAL 235.20

ZF TE ML 05A, 12L, 12M, 16B,
17B, 19B, 21A

FUCHS recommendations:

MIL-PRF-2105 E

ARVIN MERITOR AXLES

MACK GO-J

JOHN DEERE JDM J 11 E

SCANIA STO 1:0

ZF TE-ML 07A

How to find the right gear oil

API Classifications

The American Petroleum Institute (API) created a classification system for gear oils based on application conditions and the type of gears most commonly used. The presence of frictional systems such as clutches or synchromesh rings in gearboxes as well as sealing material compatibility or component wear are not considered. API gear oil classifications are now internationally recognised and used.

API	Application conditions	Gearbox type
GL-4	high rotational speed/low torque or low rotational speed/high torque, limited sliding portion	highly loaded manual gearboxes, mild hypoid axle drives, moderate axle off-sets
GL-5	high rotational speed and shock-loading, high rotational speed/low torque or low-rotational speed/high torque	hypoid axle drives, highly loaded drives with large axle off-sets, very highly loaded manual transmissions
MT-1 valid!	spur gear, dog-engaged gearboxes	non-synchromesh manual transmissions

US Military Specifications

The US Military authorities have created their own gear oil specifications which are sometimes also used for civilian application

MIL Specification	Status	API Performance	SAE Grades
MIL-L-2105 B	Introduced in 1962. Superseded by MIL-L-2105 C.	API GL-5	SAE 80 SAE 90 SAE 140
MIL-L-2105 C	Introduced in 1976. Superseded by MIL-L-2105 D.	API GL-5	SAE 75W SAE 80W-90 SAE 85W-140
MIL-L-2105 D	Introduced in the 2nd half 1987.	API GL-5	SAE 75W SAE 80W-90 SAE 85W-140
MIL-PRF-2105 E	Introduced in 1997: As MIL-L-2105 D with additional suitability for non-synchromesh, manual gearboxes. Replaces A-D	API GL-5 API MT-1	SAE 75W SAE 80W-90 SAE 85W-140
SAE J2360	Civil version of MIL-L-2105 E.	see above	see above

Approvals by manufacturers

MACK *Application area*

GO-H	Axle oils, e.g. SAE 90, SAE 140, SAE 80W-90 and SAE 85W-140
GO-J	Gear oil, axle oil, normal drain interval (up to 250,000 miles/3 years on highway operation)
GO-J Plus	Gear oil, axle oil, extended drain interval (up to 500,000 miles/3 years on highway operation)
TO-A Plus	Manual transmission fluid (MTF), e.g. SAE 50, extended drain interval (up to 500,000 miles/3 years on highway operation)

Approvals by manufacturers

MAN	Application area
M 3343 M	Multifunctional oil, mineral oil-based, extended drain intervals
M 3343 S	Multifunctional oil, synthetic, extended drain intervals
MAN 341 Z1	MTF, mineral oil-based, normal drain intervals
MAN 341 Z2	MTF, mineral oil-based, extended drain intervals
MAN 341 Z3	MTF, semi-synthetic, extended drain intervals
MAN 341 Z4	MTF, synthetic, more extended drain intervals
MAN 341 Z5	MTF, synthetic, maximum drain intervals
MAN 341 E1	MFT, mineral oil-based, normal drain intervals
MAN 341 E2	MFT, mineral oil-based, extended drain intervals
MAN 341 E3	MFT, semi-synthetic, extended drain intervals
MAN 341 E4	MFT, synthetic, more extended drain intervals
MAN 341 ZE	MTF for ZF Ecomid/Ecosplit
MAN 341 VR	MTF for VOITH retarders
MAN 341 MB	MTF for Mercedes-Benz manual transmissions in buses
MAN 342 M1	Axle oil, mineral oil or semi-synthetic, normal drain intervals
MAN 342 M2	Axle oil, mineral oil or semi-synthetic, extended drain intervals
MAN 342 M3	Axle oil, mineral oil or semi-synthetic, more extended drain intervals
MAN 342 S1	Axle oil, synthetic, maximum drain intervals

MB-sheet	Application area
MB 235.0	Hypoid gear oils SAE 85W-90, SAE 90
MB 235.1	Gear oils SAE 80, 80W/85W
MB 235.4	Synthetic gear oils SAE 75W/85W
MB 235.5	Gear oils SAE 80, 80W/85W
MB 235.6	Hypoid gear oils SAE 85W-90, SAE 90
MB 235.7	FE-hypoid gear oils SAE 85W-90
MB 235.8	Hypoid gear oils SAE 75W-90
MB 235.10	MTF
MB 235.11	FE-MTFs for extended drain intervals
MB 235.12	Manual gearbox oils SAE 30, 40
MB 235.13	Fully-synthetic manual gearbox oils
MB 235.15	Hypoid gear oils SAE 75W-85
MB 235.20	Mineral axle oils, LD, SAE 80W-90
MB 235.27	Retarder oils NFZ, category voith A
MB 235.28	Retarder oils NFZ, category voith B
MB 235.29	Retarder oils NFZ, category voith C
MB 235.61	Hypoid gear oils, AMG

SCANIA	Application area
STO 1:0	Axle Oil acc. to GL-5 for use in SCANIA manual transmissions, transfer cases and rear axles.
STO 2:0A	Axle Oil acc. to SAE J 2360 for use in SCANIA manual transmissions, transfer cases and rear axles. Improved shear and oxidation stability and fuel efficiency potential. Increased drain interval up to 540,000 km (proven in field test).

VOLVO	Application area
97303	Multifunctional oil for wet brake systems, WB 101, UTTO
97305	Manual transmission oil, transfer case oil, GL-4, SAE 80W-90
97307	Manual transmission oil, extended drain intervals, GL-4
97308	Special synthetic manual transmission oil, GL-4
97310	Gear oil for heavy rear axles, GL-5
97312	Gear oil for heavy rear axles, extended drain intervals, GL-5
97315	Fully-synthetic manual transmission oil, more extended drain intervals, GL-4

ZF	Application area
TE-ML 02	Manual and automatic transmissions for commercial vehicles
TE-ML 03	Converter transmissions for off-road equipment
TE-ML 05	Axles for off-road vehicles
TE-ML 06	Tractor transmissions and hydraulic lifts
TE-ML 07	Hydrostatic-mechanical and electric drive systems
TE-ML 11	Manual and automatic transmissions for cars
TE-ML 12	Axles for commercial vehicles and buses
TE-ML 13	ZF assemblies in special purpose vehicles
TE-ML 16	Transmissions for rail vehicles
TE-ML 17	Transmissions and axles for lift-trucks
TE-ML 18	Axles for cars
TE-ML 19	Transfer and offset transmissions for commercial vehicles
TE-ML 21	Tractor axles, transmissions for harvesters and final drives.

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