

# Engine oils

ADDINOL Engine oils	SAE	ACEA	API	International specifications and approvals
Professional 0530 E6/E9	5W-30	E6/E7/E9	CJ-4, SN	MAN M 3677, MAN M 3477, MAN M 3271-1, meets: MB-Approval 228.51/228.31, MTU Type 3.1, Volvo VDS-3/-4, Volvo CNG, Renault RGD/RXD/RLD/RLD-2/RLD-3, Deutz DQC IV-10 LA, Mack EO-M Plus/EO-N Premium Plus/EO-O Premium Plus, Caterpillar ECF-3, DDC Series 93K218, Cummins CES 20081, JASO DH-2
Ultra Truck MD 0538	5W-30	E4/E7	CI-4	MAN M 3277, Renault RXD, Volvo VDS-2, MTU Type 3, MB-Approval 228.5, DDC BR 2000/4000, meets: DAF, Deutz DQC IV-10, Cummins CES 20078, Caterpillar ECF-2
Commercial 0540 E7	5W-40	E7/E5/E3	CI-4 Plus/SL	meets: MB-Approval 228.3, MAN M 3275-1, Volvo VDS-3, Renault RLD/RLD-2, MTU Type 2, Mack EO-N/EO-M Plus, Cummins CES 20077/76, Caterpillar ECF-2/ECF-1a, Deutz DQC III-10
Super Longlife MD 1047	10W-40	E7/E5/E3	CI-4 Plus/SL	Global DHD-1, MIL-L-2104 E, MB-Approval 228.3/229.1, MAN M 3275-1, Volvo VDS-3, MTU Type 2, DDC Series 2000 & 4000, Deutz DQC III-10, Renault RLD-2, Mack EO-N, meets: DAF, Caterpillar TO-2/ECF-1a/ECF-2, JASO DH-1, Cummins CES 20078
Super Truck MD 1049	10W-40	E4/E7	CF	MB-Approval 228.5, MAN M 3277, Scania LDF-3, Volvo VDS-3, MTU Type 3, Renault RLD-2, Deutz DQC III-10, Mack EO-N, meets: DAF, Renault RXD
Extra Truck MD 1049 LE	10W-40	E6/E7/E9	CI-4 Plus	MB-Approval 228.51, MAN M 3477, MAN M 3271-1, Renault RXD, Deutz DQC IV-10 LA, MTU Type 3.1, Volvo VDS-3, meets: DAF HP2, Caterpillar ECF-1a, MB-Approval 226.9, Renault RGD, Volvo CNG and further
Professional 1040 E9	10W-40	E9/E7	CJ-4/SM	MB-Approval 228.31, MAN M 3575, meets: Volvo VDS-4, Renault RLD-3, Mack EO-O Premium Plus, MTU Type 2.1, Deutz DQC III-10 LA, Caterpillar ECF-3/-2/-1a, Cummins CES 20081, DDC 93K218
Professional 1540 E9	15W-40			MB-Approval 228.31, MAN M 3575, Volvo VDS-4, Renault RLD-3, Mack EO-O Premium Plus, meets: MTU Type 2.1, Deutz DQC III-10 LA, Caterpillar ECF-3/-2/-1a, Cummins CES 20081, DDC 93K218, JDQ 78 X
Commercial 1040 E4	10W-40	E4/E7	CI-4	Global DHD-1, MAN M 3277, MAN M 3377, MB-Approval 228.5, meets: Volvo VDS-3, MTU Type 3, Renault RXD, Deutz DQC III-10, DAF, Mack EO-M Plus, Cummins CES 20078
Diesel Longlife MD 1548	15W-40	E7/E5/E3	CI-4 Plus/SL	Global DHD-1, MB-Approval 228.3/229.1, MAN M 3275-1, Volvo VDS-3, MTU Type 2, DDC Series 2000 & 4000, Renault RLD-2, Deutz DQC III-10 (running), Mack EO-N, meets: VW 501 01/505 00, JDQ 78 A, Allison C4, Caterpillar ECF-2/ECF-1a, Cummins CES 20078, DAF and further.
Super Diesel MD 1045	10W-40	E3/B3	CF-4/SG	MIL-L-2104 E, meet: MB-Approval 228.3, MAN 271, Volvo VDS, Caterpillar TO-2, Allison C4, Mack EO-K/2
Super Diesel MD 1545	15W-40			
Super Diesel MD 2055	20W-50			
Diesel Longlife MD 2058	20W-50	E7	CI-4/SL	meets: MB-Approval 228.3/229.1, MAN M 3275-1, Volvo VDS-3, Renault RLD-2, Deutz DQC II-05, MTU Type 2, DDC Series 2000 & 4000, Cummins CES 20078, Mack EO-M Plus, Caterpillar ECF-1/TO-2, Allison C4, JDQ 78 A, Iveco, DAF and further
Turbo Diesel MD 105, 205, 305, 405, 505	10W to 50	E2	CG-4/SF	MIL-L-2104 E, MAN 270, MTU Type 1, MD 305/MD 405: ZF TE-ML 02H, 04B, meet: MB-Approval 228.0, Mack EO-K/2, Caterpillar TO-2
Premium Star MX 1048	10W-40	E7	CI-4/SL	MIL-L-2104 E, MIL-L-46152 E, MB-Approval 228.3/229.1, MAN 271, meets: VW 502 00/505 00, Volvo VDS-3, MAN M 3275-1, Renault RLD/RLD-2, Allison C4, Caterpillar TO-2, Mack EO-K/2, Deutz DQC III-10, MTU Type 2
Super Star MX 1547	15W-40	E2, B3/A3	CG-4/SJ	MIL-L-46152 E, MIL-L-2104 E, MAN 271, MTU Type 1, ZF TE-ML 04C, 07C, meet: MB-Approval 228.1/229.1, VW 501 01/505 00, Volvo VDS, Mack EO-K/2, Allison C4, Caterpillar TO-2
Super Star MX 1557, MX 2057	15W-50 20W-50	E2, B3/A3	CF-4/SL	MIL-L 46152 E, MIL-L 2104 E, meet: MB-Approval 229.1/228.1, MAN 271, VW 501 01/505 00, Mack EO-K/2, Caterpillar TO-2
Gasmotorenöl MG 1040	10W-40	E2, B3/A3	CG-4/SJ	meets: MAN 3271-1, MB-Approval 226.9
Gasmotorenöl MG 1540	15W-40	E2	CG-4	MAN M 3271-1, meets: MB-Approval 226.9

# Transmission oils and ATF

ADDINOL Transmission oils	SAE	API	International specifications and approvals
GS 75 W 80 SL	75W-80	API GL-4	MAN 341 Z4/E3 (SL), ZF TE ML 02L, 16K, meets: EATON Europe, Volvo 97305, ZF TE-ML 01L, 08, DAF, Iveco, Renault
Transmission MBS 75W 90	75W-90	API GL-4	MB-Approval 235.11, meets: MAN 341 Type MB, ZF TE-ML 08
GS 75 W 90	75W-90	API GL-4	MIL-L-2105, meets: ZF TE-ML 08
GS 80 W	80W	API GL-4	MIL-L-2105, MB-Approval 235.1, MAN 341 Z2/E1 (N), ZF TE-ML 02B, 17A, meets: ZF TE-ML 08
GS 80 W 90	80W-90	API GL-4	MIL-L-2105, ZF TE-ML 02B, 16A, 17A, 19A, meets: ZF TE-ML 08
GS 85 W 90	85W-90	API GL-4	MIL-L-2105
GS 85 W 140	85W-140	API GL-4	MIL-L-2105
GX 80 W 90	80W-90	API GL-4/ GL-5	MIL-L-2105/2105 D, meets: MAN 341 Z1 (N), MAN 342 M1 (N), MB-Approval 235.0/235.1
GX 80 W 90 ML	80W-90	API GL-4/ GL-5, MT1	MIL-L-2105/2105 D, ZF TE-ML 02B, 05A, 12L, 12M, 16B, 17B, 19B, 21A, MAN 341 E2/Z2, MAN 342 M2, meets: MAN 3343 M (ML), MAN 341 Z1 (N), MAN 342 M1 (N), ZF TE-ML 07A, 08
GH 75 W 90	75W-90	API GL-4/ GL-5	MIL-L-2105 D, meets: VW 501 50 (G50), ZF TE-ML 07A, 08
Transmission SL SAE 75W-90	75W-90	API GL-5	meets: MAN 342 S1 (SL), MB-Approval 235.8, ZF TE-ML 07A, 12B, 16F, 17B
GH 75 W 90 SL	75W-90	API GL-5	MIL-L-2105 D, MIL-PRF-2105 E, MAN 342 S1 (SL), ZF TE-ML 05B, 12B, 16F, 17B, MB-Approval 235.8, meets: Volvo 97312, DAF, ZF TE-ML 07A, 08
GH 80 W 90	80W-90	API GL-5	MIL-L-2105 D, ZF TE-ML 05A, 16B, 17B, 19B, 21A, meets: ZF TE-ML 07A, 08
GH 85 W 90	85W-90	API GL-5	MIL-L-2105 D, ZF TE-ML 05A, 16C, 17B, 19B, 21A, MAN 342 M1 (N), MB-Approval 235.0, meets: ZF TE-ML 07A, 08
GH 80 W 140	80W-140	API GL-5	MIL-L-2105 D, meets: ZF TE-ML 07A, 08
GH 85 W 140	85W-140	API GL-5	MIL-L-2105 D, meets: ZF TE-ML 07A, 08
GH 80 W 90 LS	80W-90	API GL-5	MIL-L-2105 D, ZF TE-ML 05C, 12C, 21C, meets: MB-Approval 235.0, MAN 342 M1 (N), Volvo 97310/97314, DAF, ZF TE ML 07A, 08
GH 85 W 90 LS	85W-90	API GL-5	MIL-L-2105 D, ZF TE-ML 05C, 12C, 16E, 21C, meets: MB-Approval 235.0, MAN 342 M1 (N), Volvo 97310/97314, DAF, ZF TE ML 07A, 08

ADDINOL ATF	Type	International specifications and approvals
ATF XN Plus	Dexron VI	meets: Ford Mercon/Mercon V/FNR5, Allison C4/TES-295, MAN 339 F/V1/V2/Z1/Z2, Voith H55.6335.XX (G 607)/H55.6336.XX (G 1363), ZF TE-ML 03D, 04D, 05L, 09, 11B, 14A, 14B, 16L, 17C, MB-Approval 236.1/236.2/236.5/236.6/236.7/236.9/236.10/236.11/236.12, 236.14, etc.
ATF XN	Dexron III (H)	meets: Voith H55.6335.XX (G 607), ZF TE-ML 14A, Allison C4, MAN 339 Z1, Ford Mercon, GM 1940767, Mitsubishi SP-II/-III, Nissan Matic C/D/J, Toyota T-III/-IV/D-2, Subaru ATF, Suzuki ATF Oil/ATF Oil Special, Hyundai, Honda ATF Z1, Kia, Isuzu Besco ATF-II/-III, etc.
ATF D III	Dexron III (G)	MB-Approval 236.1, MAN 339 V1/Z1 (F), ZF TE-ML 04D, 14A, Voith H55.6335.36 (G 607), meets: Allison C4, Ford Mercon, GM Dexron III (G-34052)
ATF D II E	Dexron II E	MB-Approval 236.8, MAN 339 Z2 (D), ZF TE-ML 04D, 09X, 14B, 16L, meets: Voith H55.6335.36 (G 607), Voith H55.6336.XX, Renk (Doromat), Allison C4, Caterpillar TO-2, Ford Mercon (M93-1288), GM Dexron II E-25300
ATF D II D	Dexron II D	MB-Approval 236.1, MAN 339 V1/Z1 (D), ZF TE-ML 04D, 14A, Voith H55.6335.36 (G 607), Renk (Doromat), meets: Allison C3/C4, Caterpillar TO-2 and further
ATF TASA	A, Suffix A	MB-Approval 236.2, Renk (Doromat)

**ADDINOL**  
THE ART OF OIL · SINCE 1936

➤ ADDINOL Engine and Transmission Oils For Motor Trucks



MORE THAN  
**75**  
YEARS

**GERMAN**  
QUALITY



► **How to choose the right engine oil – fast, simple, safe**

Decisive for the selection are the operating instructions of your vehicle.

Under the point “engine oil” the manufacturers lay down which oil is allowed to be used. Here they give details on:

- viscosity and/or SAE-grade
- approvals
- specifications.

MAN, Mercedes-Benz, MTU, Renault, Fiat-Iveco, Mack, Scania, Volvo and VW have their own approvals for engine oils. Other manufacturers use only international specifications like ACEA and API. The approvals and specifications have different combinations of numbers and/or letters. These combinations indicate the oil type. Thus the respective details are given on all ADDINOL packages and in this flyer.

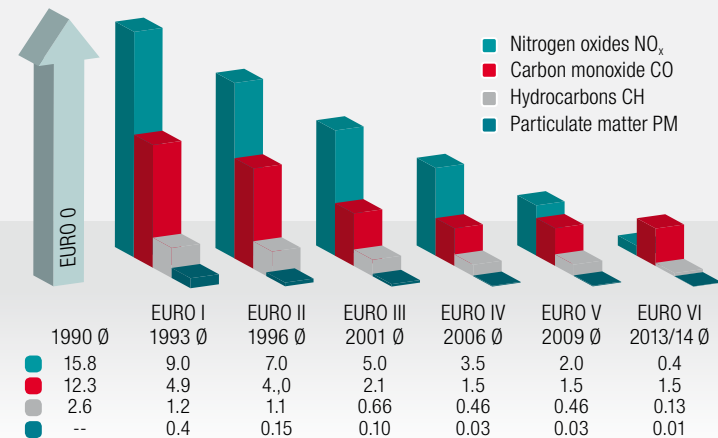
**The combinations of numbers and letters are easy to understand**

**Viscosity** – it describes the flow behaviour of the oil and depends on the temperature. Engine and transmission oils are classified into SAE-grades (Society of Automotive Engineers). Modern multi-grade oils like ADDINOL Extra Truck MD 1049 LE or ADDINOL Professional 0530 E6/E9 are all-season oils. They lubricate reliably at all temperatures.

**ACEA** – is the name of the association of European engine manufacturers (Association des Constructeurs Européens d'Automobiles). It draws up specifications for engine oils which are based on strict European testing methods. Thus the specifications of ACEA describe the requirements on engine oils shared by the European vehicle manufacturers. Specifications for diesel engines of commercial vehicles are summed up in category ACEA E, the highest specifications for vehicles with exhaust treatment at the moment being ACEA E6 and ACEA E9 with ACEA E9 taking into consideration the requirements of American manufacturers for the first time.

**API** – the specifications of the American Petroleum Institute are based mainly on tests with engines of American manufacturers. For commercial vehicles classifications marked with API C (C = Commercial) are relevant. Current specifications range from API CH-4 to API CJ-4, API CA to API CG-4 are valid for vehicles constructed before 1998. API CJ-4 describes the highest requirements on diesel engine oils at the moment.

Emission standards for trucks and buses, Euro 0 to Euro VI



**Play it safe with engine oils of ADDINOL:**

- ✓ excellent engine cleanliness thanks to outstanding cleaning capacity
- ✓ reliable protection against corrosion and wear for long engine lifetimes
- ✓ superior starting and warming up performance for the safe lubrication under all conditions
- ✓ long service intervals by low evaporation losses and high ageing stability
- ✓ reduced exhaust emissions
- ✓ enhanced friction behaviour for low fuel consumption
- ✓ high operational safety and stable performance under all operating conditions
- ✓ perfect protection for exhaust treatment systems (please follow instructions of your vehicle manufacturer!)

The table below gives a short overview on differences and similarities:

	ACEA E4	ACEA E6	ACEA E7	ACEA E9
Low SAPS		x		x
Content Sulphated ash	≤ 2	≤ 1	≤ 2	≤ 1
Total Base Number	≥ 12	≥ 7	≥ 9	≥ 7
Euro VI		x		x
Diesel particulate filter		x		x
Selective catalytic reduction (AdBlue)	x	x	x	x
Exhaust gas recirculation	x	x	x	x
Extended service intervals		x		
Fuel B05	x	x	x	x
API CJ-4				x

**EXHAUST EMISSIONS**

In the last years, new emission standards for heavy commercial vehicles and mobile machinery came into effect in Europe and the United States step by step. In order to achieve these increasingly strict standards vehicle manufacturers employ modern engine technologies and exhaust treatment systems. Such systems require engine oils with a low content of ash-forming substances, so-called Low and Mid SAPS oils. Naturally, these complex requirements are reflected in the specifications of vehicle manufacturers.

If engine oils of a lower performance and minor quality are used, the limits for exhaust emissions cannot be met. This in turn poses a risk to engines and exhaust treatment systems. Their functionality is curtailed, damages might occur and operating lives are reduced!

Engine oils meeting API CJ-4 comply with the latest emission standards and are developed to protect diesel particulate filters and further exhaust treatment systems. In Europe modern Low and Mid SAPS oils for the application in vehicles with exhaust treatment systems are classified according to ACEA E4, E6, E7 and E9 depending on their content of ash-forming substances.



**ADDINOL – German Quality since 1936**

The ADDINOL Lube Oil GmbH develops and produces modern lubricants for highest requirements in automotive and industrial applications.

The product range of ADDINOL includes engine and transmission oils of the highest international specifications. More than 150 approvals of leading OEM argue for the outstanding quality of ADDINOL lubricants for all motor and commercial vehicles. Among these OEM are for example Mercedes-Benz, the Volkswagen group, MAN, Renault, Scania, Volvo and MTU.

Research & Development is one of the core competencies of our company. ADDINOL provides intelligent solutions which guarantee optimum lubrication and ensure responsibility towards the environment at the same time.

In close co-operation with leading vehicle manufacturers ADDINOL develops the required products at the latest state of ever progressing art, specifically tailored to modern engine technologies and exhaust treatment systems.

With distributor partners in more than 90 countries ADDINOL is represented on all continents. The experts at ADDINOL have comprehensive tribological know-how and experience. Our range of more than 600 high-performance lubricants and comprehensive service provide the optimum solution for your lubrication-related applications.

**ADDINOL – Improve the performance!**

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Handed over by:

