



ACEA specifications – Guidelines for European cars

There are three main factors that especially affect the European market:

- extended oil drain intervals
- fuel savings
- exhaust gas composition

The different uses of the engine oils are labelled by the European ACEA 2016 classification by letter:

- A/B for passenger cars with gasoline and light diesel engines
C for passenger cars with diesel particulate filter
E for commercial vehicles with heavy duty diesel engines

ACEA A/B for gasoline and light diesel engines

A1 / B1	Stable, stay-in-grade oils; for use in extended oil change intervals in gasoline and diesel engines, both passenger cars and light vans. Specifically designed to be capable of using smooth-running low viscosity oils with a high temperature/high shear viscosity (HTHS) of 2,6 mPa*s for xW-20 and 2,9 to 3,5 mPa*s for all other viscosity grades. These oils are not suitable for all vehicle engines. For detailed information, refer to the vehicle manual or contact your vehicle dealer. Special approval of the manufacturer required.
A3 / B3	Stable, stay-in-grade oils; for use in high-performance gasoline and diesel engines, both for passenger cars and light vans. Enable extended oil change intervals specified by engine manufacturers. Low viscous oils can be used all year round. In addition, these oils are particularly suitable for heavy duty conditions defined by engine manufacturers.
A3 / B4	Stable, stay-in-grade oils; intended for use in high-performance gasoline and direct injection diesel engines, but also suitable for applications described under A3/B3.
A5 / B5	Stable, stay-in-grade oils; intended for use in extended oil change intervals in gasoline and diesel engines, both for passenger cars and light vans. Designed to be capable of using smooth-running with low viscosity and a high temperature/high shear viscosity (HTHS) of 2,9 to 3,5 mPa*s. These oils are not suitable for all vehicle engines. For detailed information, refer to the vehicle manual or contact your vehicle dealer. Special approval of the manufacturer required.
A7 / B7	Stable, stay-in-grade oils intended for use at extended oil drain intervals in passenger car and light-duty gasoline & DI diesel engines designed for low viscosity engine oils with HTHS viscosity of 2,9 to 3,5 mPa*s. Relative to A5/B5 these engine oils provide also low speed pre-ignition- and wear protection for turbocharged gasoline DI engines as well as turbocharger compressor deposit (TCCD) protection for modern DI diesel engines. The recommendations of the engine manufacturers can be different. For detailed information, refer to the vehicle manual or contact your vehicle dealer.

ACEA C for catalyst compatible oils

C1	Stable, stay-in-grade oils; intended for use as catalyst compatible oil in vehicles with DPF and TWC in high-performance car and light van diesel and gasoline engines requiring smooth-running, low viscosity, Low SAPS oils with a minimum HTHS viscosity of 2,9 mPa*s. These oils will increase the DPF and TWC life and maintain the vehicles fuel economy. Warning: These oils have the lowest SAPS limits and are not suitable for all vehicle engines. For detailed information, refer to the vehicle manual or contact your vehicle dealer.
C2	Stable, stay-in-grade oils; intended for use as catalyst compatible oil in vehicles with DPF and TWC in high-performance car and light van diesel and gasoline engines designed to be capable of using smooth-running, low viscosity oils with a minimum HTHS viscosity of 2,9 mPa*s. These oils will increase the DPF and TWC life and maintain the vehicles fuel economy. Warning: These oils are not suitable for all vehicle engines. For detailed information, refer to the vehicle manual or contact your vehicle dealer. Special approval of the manufacturer required.
C3	Stable, stay-in-grade oils; intended for use as catalyst compatible oil in vehicles with DPF and TWC in high-performance car and light van diesel and gasoline engines, with a minimum HTHS viscosity of 3,5 mPa*s. These oils will increase the DPF and TWC life. Warning: These oils are not suitable for all vehicle engines. For detailed information, refer to the vehicle manual or contact your vehicle dealer. Special approval of the manufacturer required.
C4	Stable, stay-in-grade oils; intended for use as catalyst compatible oil in vehicles with DPF and TWC in high-performance car and light van diesel and gasoline engines requiring Low SAPS oil with a minimum HTHS viscosity of 3,5 mPa*s. These oils will increase the DPF and TWC life. Warning: These oils are not suitable for all vehicle engines. For detailed information, refer to the vehicle manual or contact your vehicle dealer. Special approval of the manufacturer required.
C5	Stable, stay-in-grade oils for improved fuel economy, with mid-SAPS Level, for aftertreatment system compatibility. Intended for use at extended oil drain intervals in passenger car and light-duty gasoline & DI diesel engines designed and OEM-approved for engine oils with HTHS viscosity of minimum 2,6 mPa*s.
C6	Stable, stay-in-grade oils for improved fuel economy, with mid-SAPS Level, for aftertreatment system compatibility. Intended for use at extended oil drain intervals in passenger car and light-duty gasoline & DI diesel engines designed and OEM-approved for engine oils with HTHS viscosity of minimum 2,6 mPa*s. Relative to C5 these engine oils provide also low speed pre-ignition-and wear protection for turbocharged gasoline DI engines as well as turbocharger compressor deposit (TCCD) protection for modern DI diesel engines.

ACEA E for heavy duty diesel engines

E4	Stable, stay-in-grade oils; ensure excellent piston cleanliness, very good wear protection and a stable lubricity. In addition, they prevent soot deposits. They are particularly suitable for use in heavy duty, high-performance diesel engines meeting Euro I, II, III, IV and V emission standards (even under the most severe conditions). These oils are designed for engines without particulate filters, for selected EGR engines and engines with SCR NOx reduction system. The recommendations of the engine manufacturer can be different. For detailed information, refer to the vehicle manual or contact your vehicle dealer. Special approval of the manufacturer required.
E6	Stable, stay-in-grade oils; ensure excellent piston cleanliness, very good wear protection and a stable lubricity. In addition, they prevent soot deposits. They are particularly suitable for use in heavy duty, high-performance diesel engines meeting Euro I, II, III, IV and V emission standards (even under the most severe conditions). E6 is recommended for engines equipped with diesel particulate filter in combination with sulfur-free fuel. Furthermore, these oils are designed for EGR engines with or without particulate filters and for engines with SCR NOx reduction system. The recommendations of the engine manufacturers can be different. For detailed information, refer to the vehicle manual or contact your vehicle dealer. Special approval of the manufacturer required.
E7	Stable, stay-in-grade oils; control the piston cleanliness and prevent bore polishing. Furthermore, these oils are characterized by high wear protection, low deposits in the turbocharger and stable lubricity. They are particularly suitable for use in heavy duty, high-performance diesel engines meeting Euro I, II, III, IV and V emissions standards (even under the most severe conditions.). These oils are designed for engines without particulate filters, for a variety of EGR engines and engines with SCR NOx reduction system. The recommendations of the engine manufacturers can be different. For detailed information, refer to the vehicle manual or contact your vehicle dealer. Special approval of the manufacturer required.
E8	Stable, stay-in-grade oil providing excellent control of piston cleanliness, wear, soot handling and lubricant stability. It is recommended for highly-rated diesel engines meeting Euro I, Euro II, Euro III, Euro IV, Euro V and Euro VI emission requirements and running under very severe conditions, eg significantly extended oil drain intervals according to the manufacturer's recommendations. It is suitable for EGR engines, with or without particulate filters, and for engines fitted with SCR NOx reduction systems. E8 quality is strongly recommended for engines fitted with particulate filters and is designed for use in combination with low-sulfur diesel fuel. The recommendations of the engine manufacturers can be different. For detailed information, refer to the vehicle manual or contact your vehicle dealer directly.

E9	Stable, stay-in-grade oils; control the piston cleanliness and prevent bore polishing. Furthermore, these oils are characterized by high wear protection, low deposits in the turbocharger and stable lubricity. They are particularly suitable for use in heavy-duty diesel engines meeting Euro I, II, III, IV and VI emission standards (even under the most severe conditions). E9 is recommended for engines equipped with diesel particulate filter in combination with sulfur-free fuel. These oils are designed for engines with or without particulate filters, for a variety of EGR engines, and engines with SCR NOx reduction system. The recommendations of the engine manufacturers can be different. For detailed information, refer to the vehicle manual or contact your vehicle dealer directly. Special approval of the manufacturer required.
E11	Stable, stay-in-grade oils; providing effective control with respect to piston cleanliness and bore polishing. It further provides excellent wear control, soot handling and lubricant stability. It is recommended or highly rated diesel engines meeting Euro I, Euro II, Euro III, Euro IV, Euro V and Euro VI emission requirements and running under severe conditions, eg extended oil drain intervals according to the manufacturer's recommendations. It is suitable for engines with particulate filters, and for most EGR engines and for most engines fitted with SCR NOx reduction systems. E11 is strongly recommended for engines fitted with particulate filters and is designed for use in combination with low-sulfur diesel fuel. The recommendations of the engine manufacturers can be different. For detailed information, refer to the vehicle manual or contact your vehicle dealer directly..

Abbreviations: SAPS: Sulphated Ash, Phosphorus, Sulphur | DPF: Diesel Particulate Filter
TWC: Three way catalyst | HTHS: High temperature/high shear viscosity

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