



# TECHNICAL BULLETIN

## ACEA

Issue: December 2017

**ACEA** (Association des Constructeurs Europeens de l'Automobile) is the European Equivalent of the API (American Petroleum Institute) and it is representative of 15 Europe based car, van, bus and truck manufacturers with production sites in the EU. It has close relations with the 29 national automobile manufacturers' associations in Europe, and maintains a dialogue on international issues with automobile associations around the world.

### The members of ACEA are –

BMW Group  
FCA (Fiat Chrysler Automobiles)  
Iveco  
Volkswagen  
Volvo

DAF  
Ford  
Jaguar / Land Rover  
Renault  
Toyota

Daimler  
Hyundai  
Opal Group  
PSA (Peugeot Citroen)

**ACEA** does not certify oils, nor license, nor register, compliance certificates. Oil manufacturers are themselves responsible for carrying out all oil testing and evaluation according to recognised engine lubricant industry standards and practices. In particular the ACEA European Oil Sequences refer to many standard CEC (Coordinating European Council) tests. CEC is an Industry-based organisation which develops Test Methods for the performance testing of **Automotive Engine Oil, Fuels & Transmission Fluids** (using gasoline & diesel engines). In addition, it covers **Marine & Large Engine Oils, Two-stroke Engine Oils & Associated Bench Tests**.

### Specifications

#### Petrol & Diesel Engine Oils

**A1/B1** – This category is now removed from current ACEA oil sequences. (Obsolete)

**A3/B3** Stable, stay-in-grade oil intended for use in high performance petrol engines and car & light van diesel engines and/or for extended drain intervals where specified by the engine manufacturer, and/or for year-round use of low viscosity oils, and/or for severe operating conditions as defined by the engine manufacturer.

**A3/B4** Stable, stay-in-grade oil intended for use in high performance petrol and direct injection diesel engines, but also suitable for applications described under A3/B3.

**A5/B5** Stable, stay-in-grade Engine Oil intended for use at extended Drain Intervals in Passenger Car & Light Duty Van Gasoline & Diesel Engines designed to be capable of using Low Viscosity Oils with HTHS Viscosity of 2.9 to 3.5 mPa.s. These Oils are unsuitable for use in certain Engines - consult vehicle-OEM's owner's manual/handbook in case of doubt.

#### Catalyst Compatible Oils

**C1** Stable, stay-in-grade oil intended for use as catalyst compatible oil in vehicles with DPF and TWC in high performance car and light van diesel and petrol engines requiring low friction, 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. These oils have the lowest SAPS limits and are unsuitable for use in some engines.

**C2** Stable, stay-in-grade oil intended for use as catalyst compatible oil in vehicles with DPF and TWC in high performance car and light van diesel and petrol engines designed to be capable of using low friction, 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. These oils are unsuitable for use in some engines.

**C3** Stable, stay-in-grade oil intended for use as catalyst compatible oil in vehicles with DPF and TWC in high performance car and light van diesel and petrol engines, with a minimum HTHS viscosity of 3.5 mPa.s. These oils will increase the DPF and TWC life. These oils are unsuitable for use in some engines.

**C4** Stable, stay-in-grade oil intended for use as catalyst compatible oil in vehicles with DPF and TWC in high performance car and light van diesel and petrol engines requiring low SAPS oil with a minimum HTHS viscosity of 3.5 mPa.s. These oils will increase the DPF and TWC life. These oils are unsuitable for use in some engines.

**C5** Stable, stay-in-grade Engine Oil with Mid SAPS-Level, for further improved Fuel Economy, intended for use as catalyst compatible Oil at extended Drain Intervals in Vehicles with all Types of modern Aftertreatment Systems and High Performance Passenger Car & Light Duty Van Gasoline & DI Diesel Engines that are designed to be capable and OEM-approved for use of Low Viscosity Oils with a minimum HTHS Viscosity of 2.6 mPa.s.

PENRITE



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## Heavy Duty

**E4** 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 and Euro V emission requirements and running under very severe conditions, e.g. significantly extended oil drain intervals according to the manufacturer's recommendations. It is suitable for engines without particulate filters, and for some EGR engines and some engines fitted with SCR NOx reduction systems.

**E6** 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, e.g. 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. E6 quality is strongly recommended for engines fitted with particulate filters and is designed for use in combination with low sulphur diesel fuel.

**E7** Stable, stay-in-grade oil 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 for highly rated diesel engines meeting Euro I, Euro II, Euro III, Euro IV and Euro V emission requirements and running under severe conditions, e.g. extended oil drain intervals according to the manufacturer's recommendations. It is suitable for engines without particulate filters, and for most EGR engines and most engines fitted with SCR NOx reduction systems.

**E9** Stable, stay-in-grade oil 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 for 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, e.g. extended oil drain intervals according to the manufacturer's recommendations. It is suitable for engines with or without particulate filters, and for most EGR engines and for most engines fitted with SCR NOx reduction systems. E9 is strongly recommended for engines fitted with particulate filters and is designed for use in combination with low Sulphur diesel fuel.

### Abbreviations

**SAPS:** Sulphated Ash, Phosphorus, Sulphur  
**HTHS:** High Temperature High Shear Viscosity  
**DI:** Direct Injection  
**DPF:** Diesel Particle Filter  
**GPF:** Gasoline Particle Filter  
**TWC:** Three-Way Catalyst

[Click Here](#) to visit the Penrite Recommendation Guide, which will ensure you receive the correct oil for your vehicle.



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