

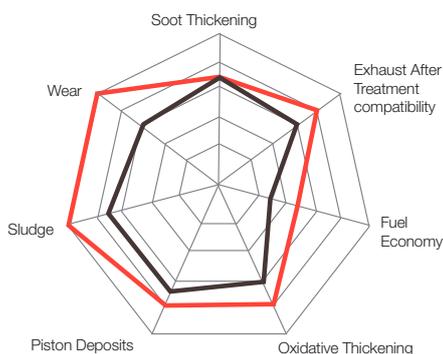
Tech Talk tips / techniques / training

There's more to oil than "C3"

- ACEA C3 should not be used as a 'fit all' product for vehicles with Exhaust After Treatment devices.
- There are many types of Exhaust After Treatment friendly oils classified by ACEA 'C' sequences.
- ACEA C3 doesn't always match vehicle manufacturer specification.

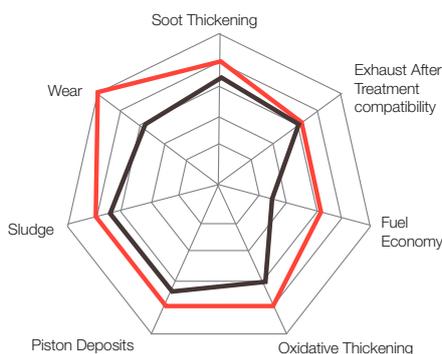
Charts showing how ACEA C3 performance levels compare to vehicle manufacturers specifications:

Fig. 1 ACEA C3 vs VW 504 00/VW 507 00



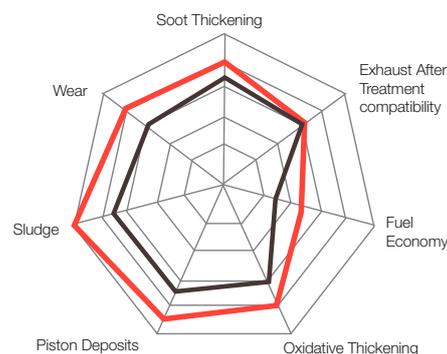
- ACEA C3 (2012 Sequence)
- VW 504 00 (2012) / VW 507 00 (2004)

Fig. 2 ACEA C3 vs Vauxhall (GM) dexos 2



- ACEA C3 (2012 Sequence)
- Vauxhall (GM) dexos 2

Fig. 3 ACEA C3 vs Mercedes-Benz MB 229.51



- ACEA C3 (2012 Sequence)
- Mercedes-Benz MB 229.51

ACEA has a complete set of sequences for exhaust after treatment friendly oils which are used often in combinations with vehicle manufacturers own specifications:

Types of low SAPS oil



ACEA C1
FORD WSS-M2C934-B
For certain: Jaguar/Land Rover, Mazda



ACEA C2
PSA B71 2290
For certain: Peugeot/Citroen



ACEA C3
VW 504 00/VW 507 00
For certain: VW, Audi, Seat, Skoda



ACEA C3
BMW LL-04, MB 229.51, dexos 2
For certain: BMW, Mercedes-Benz, GM



ACEA C4
RN0720
For certain: Renault/Nissan



ACEA C3
As a 5W-40
For certain: Alfa Romeo, Fiat & Lancia

An ACEA 'C' oil doesn't always come as a 5W-30 either...

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There's more to oil than "C3"

It's many years since viscosity alone, or viscosity and base oil type were enough to determine which oil was right for a given vehicle. It was once common-place for a single barrel of 10W-40 to be used for every vehicle that came in for service.

In recent years, the significant increase in vehicles fitted with exhaust after treatment units has resulted in many vehicles requiring so-called 'low SAPS' oils. Some technicians may be forgiven for thinking, or may have even been told, that replacing the old single barrel of 10W-40 with a new single barrel of low SAPS "C3" oil is a safe way to stock just one product that can be used in all vehicles. This could not be further from the truth – there is no single oil that can satisfy requirements for all modern vehicles!

Why can't I just use a ACEA C3 oil in every vehicle?

Ultimately there are four factors which determine whether an oil is right for a vehicle:

- The viscosity (SAE) – i.e. the oil's 'thickness' over a given temperature range
- The base oil type – i.e. whether its mineral, semi or fully synthetic
- The oil industry specification – ACEA sequences such as ACEA C3 (or outside of Europe - API (the American Petroleum Institute)).
- The vehicle manufacturer's specification – e.g. VW 507 00

Simply relying on the 'oil industry code' might satisfy one requirement of an engine but not the other factors.



Let's take a look at 2012 VW Passat – a 2.0 TDI (130kW) fitted with an exhaust after treatment unit (Diesel Particulate Filter). You might think that by simply fitting a low SAPS "C3" oil will be safe, but as the diagram shows overleaf, a product that merely meets the requirements of ACEA C3 performs significantly differently versus one that also meets the requirements of the relevant Volkswagen specification.

How can I make sure I get it right?

The safest way to make product recommendations is to use one of Comma's application tools. At www.CommaOil.com you will find product recommendations with our 100% compatibility guarantee for engine oil and antifreeze & coolant for European vehicles going back over 30 years. It also covers brake fluid, transmission and power steering fluid recommendations.

