

Technical - Is It Okay To Mix Different Engine Oils?

Is it okay to mix different engine oils?

Changing the oil in your car regularly is the key to longevity, but if you can't get the same type, is it okay to mix different types of oils?

Servicing a car is imperative to the overall health of its engine, gearbox, differential, and other moving parts.

Most vehicles have a service interval of every 10,000km or 15,000km/six to 12 months. If you're DIY savvy, servicing the car yourself can be an excellent way to save some money and make sure all the work is carried out.

Perhaps you have a small amount of oil left over after your last change, and you need to top up the oil in your car, but you're unsure what oil is inside. It may be tempting to mix the oil already in the car with a different type, but this may not be best for the car's health.

In some cases, it is okay to mix different engine oils. However, before mixing two different engine oils, you must understand multiple parameters.

Oil viscosity

Oil viscosity is listed on the front of the oil container. There will typically be two numbers and the letter 'w'; the two numbers refer to the oil's viscosity and high and low temperatures.

For example, if you buy oil labelled "20W-50" – the "20W" refers to the oil's viscosity at cold temperatures, while the "50" refers to the oil's viscosity at high temperatures.

In layman's terms, the higher the number on the bottle, the thicker the oil will be; the thicker the oil, the slower it flows.



It is important for the oil to have properties at both temperatures because oil thins out at high temperatures. Too thick of an oil for a cold start will cause the engine to struggle to circulate it, causing premature wear.

On the other end of the spectrum, at running temperatures, too thick of an oil for your engine will struggle to flow through tight tolerances and lubricate all of its components. But too thin and it will flow too much through tolerances and burn oil, which can also cause premature wear on your engine.

Every engine has a recommended oil viscosity, which can usually be found in the owner's manual or somewhere labelled in the engine bay.

Is it okay to mix different oil viscosities?

Mixing different oil viscosities is not typically recommended because you do not get an arithmetical average. Even if you mix them 50/50, you will end up with a viscosity somewhere in between the two.

However, if you have no choice, it won't spontaneously damage your engine, and it is usually okay as long as you don't differ too far from the manufacturer's recommended thickness.

For engine longevity, you should use the same oil viscosity as recommended for your engine.

Different types of oil

Engine oils come in three types: synthetic, semi-synthetic, and mineral. Almost all vehicles today use a full-synthetic or semi-synthetic oil, while older vehicles use mineral oil.

Synthetic oil

Synthetic oil is the choice for most modern engines, because it is made in a much more controlled environment and processed to the point where its chemical compound has been changed.

Mineral oil

Mineral oil is a cleaned and refined crude oil; it doesn't go through the same level of processing as synthetic oil. Because it hasn't gone through the same treatment as synthetic, it's less chemically stable, quicker to break down, and oxidised faster.



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While it is said that classic cars use mineral oil because the seals and gaskets they use are incompatible, this is a myth.

Synthetic oil is typically compatible with all engines.

But mineral oils are much cheaper than full-synthetics and often can be found in higher viscosities.

Semi-synthetic oil

Semi-synthetic oil is a blend of mineral oil and synthetic oil, usually offered at a mid-range price for people whose engines are compatible with semi-synthetic or mineral oil. It offers some of the protective qualities and additives found in full-synthetic but at a lower price point.

Can you mix synthetic and mineral oil together?

Much like mixing different viscosities, it can be done, but it's not recommended. Because semi-synthetic oil exists, it would make sense to mix a full-synthetic with a mineral, but this is not the case.

When the mixed oils start to break down and degrade, they don't perform at their optimal lubricating properties.

Making semi-synthetic oil is part of the refinery process, and oil companies aren't just mixing 50 per cent mineral oil with 50 per cent synthetic oil.

Is it okay to mix different oil brands?

As long as you are using the same – or very close – viscosity and the same type of oil, mixing different brands together is fine. For the most part, the only difference across different oil brands will be the additives they use in their oils. ■

Editor: Information for this story sourced from Drive website.