

Ask the Mechanic

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QUESTIONS TO
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A Q&A page with
expert advice.

Why is my engine oil dark before service?

Hello Paul, I have a 2018 Hyundai with a 1.6-litre petrol engine and a six-speed automatic gearbox. This car has done 40,000 kilometres and is always serviced on time. I check the oil monthly, and while the level remains steady, it is black. Should I be concerned? **Godfrey**

Hello Godfrey, engine oil is crucial for maintaining good engine health. The black colour of your Hyundai's engine oil should not be a major concern, especially if the oil level remains stable and you are using the manufacturer-recommended oil grade and viscosity during routine servicing.

Fresh engine oil typically appears clear or yellowish. As the oil circulates through the engine and performs its functions, it gradually darkens. This colour change is often a sign that the oil is doing its job. Inside the engine, oil operates under extremely harsh and hot conditions. While lubricating moving parts, it collects soot, microscopic metal particles, and combustion by-products. These contaminants are kept in suspension so that they can be removed through the oil filter during circulation or drained during the next service. As a result, the oil colour will naturally transition from a clear golden hue to brown or even black.

Reputable engine oils are formulated with special additives that serve various functions. These additives help cool hot engine components, reduce friction between metal surfaces, prevent corrosion, and minimise wear. Additionally, detergent and dispersant additives clean the inside of the engine by breaking down deposits and holding dirt in suspension, until it is filtered out. Because of these cleaning properties, it is normal for oil to darken over time as it absorbs contaminants. In many cases, darker oil simply indicates that it is effectively capturing and carrying away impurities that would otherwise accumulate inside the engine.

That said, there are a few important factors to consider when evaluating the condition of your engine oil.

Choosing the correct engine oil

Car manufacturers recommend specific types of engine oil based on viscosity and performance standards. Viscosity refers to the oil's ability to flow at different temperatures, ensuring it circulates easily during cold starts while providing adequate protection when the engine is hot. These specifications are typically listed in the vehicle owner's manual and are determined after extensive testing by the manufacturer. Using the wrong oil grade can affect engine protection, fuel efficiency, and long-term performance. Therefore, it is crucial to always use the recommended oil or a suitable equivalent that meets the required specifications.

Oil service intervals

Engine oil continuously works whenever the engine is running, and over time, its protective properties gradually de-

teriorate. The lifespan of engine oil depends on its formulation and quality. Fully synthetic oils generally provide better performance, improved protection, and longer oil drain intervals compared to conventional mineral oils. Even with this advantage, it is essential to follow the manufacturer's recommended service schedule and replace both the oil and filter at the specified intervals. Delaying oil changes can allow contaminants to build up, reducing the oil's effectiveness.

Car operating conditions

The environment and driving conditions in which a vehicle operates can also influence how quickly engine oil changes colour. Vehicles frequently driven in hot, dusty environments or in heavy stop-and-go traffic tend to experience faster oil contamination. Dust particles, high engine temperatures, and frequent short trips can accelerate oil degradation. In regions with harsh weather condi-

tions or poor road environments, oil may darken sooner than expected, even if the engine itself is functioning normally.

Engine tuning

Properly functioning engine components help maintain the quality of engine oil for longer periods. A clean air filter prevents dust and debris from entering the engine during combustion. Good spark plugs support efficient fuel combustion, reducing soot and carbon deposits. Additionally, a functioning Positive Crankcase Ventilation (PCV) system helps regulate pressure within the engine and removes harmful vapors that could contaminate the oil. If any of these components become clogged, worn out, or faulty, the engine may produce more contaminants, causing the oil to darken more quickly.

Overall engine condition

Finally, the general health of the engine can influence oil condition. Engines experiencing overheating, incomplete combustion, internal wear, or coolant leaks may cause engine oil to deteriorate more rapidly. In severe cases, oil may appear excessively thick, gritty, or milky, which could indicate contamination or mechanical problems. These conditions require immediate inspection and repair to prevent serious engine damage.

It is normal for engine oil to darken as it performs its protective and cleaning functions. As long as the oil level remains stable, the engine runs smoothly, and you use the recommended oil type while observing the correct service intervals, there is little cause for concern. However, it is always wise to regularly monitor the condition of the oil and address any unusual signs promptly to maintain the long-term health of your engine.

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