



# Are all 5W-30 motor oils equal?

MPM offers more than 10 different types of 5W-30 engine oil in its range. Is this really necessary? The answer, is a resounding yes! Motor oil is a combination of base oil and a specific additive package. This package is developed by car manufacturers in collaboration with oil producers after extensive research and is tailored precisely to the technical requirements of their engines.

## What are the key differences?

### HTHS value (High-Temperature High-Shear)

An important difference between motor oils is the variety in HTHS values. This determines how the oil behaves under extreme temperatures and loads:

- **Lower HTHS value** = Higher fuel efficiency, but a thinner lubricating film.
- **Higher HTHS value** = More protection, but lower fuel efficiency.

Modern engines are specifically designed to function with a lower HTHS value. Deviating from the prescribed oil, with the corresponding HTHS value, can lead to engine damage over time. The trend is that more and more motor oils have a lower HTHS value to reduce fuel consumption.

## Full SAPS, Mid, or Low SAPS?

The distinction between Full, Mid, and Low SAPS motor oils lies in the amount of sulphate ash, phosphorus, and sulphur in the oil after combustion. These components provide essential protection against wear, oxidation, and contamination, but in the wrong composition, they can also harm modern emission systems such as particulate filters and catalytic converters. The car manufacturer selects one of these three variants, tailored to their exhaust gas after-treatment systems.

## Cleaning and additives

To keep engines clean, oils contain detergents and dispersants. These additives help drain dirt to the oil filter and clean the engine internally. Especially for Long Life oils, the right amount and ratio of these additives are crucial. This composition often differs depending on the type of engine. Some engines are more susceptible to internal contamination than others.

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### **Modern engine technologies and their impact on motor oil**

New engine technologies require engine oils adapted accordingly. Examples include:

- **Downsizing and turbocharging**  
Higher load and temperatures require high-quality base oils.
- **Higher compression ratios**  
This oil has a low calcium content to prevent LSPI (Low-Speed Pre-Ignition).
- **Start-Stop and hybrid systems**  
Additional wear-protective additives are necessary.
- **Use of biofuels**  
Special additives prevent sludge formation.
- **Wet timing belt**  
Special additives are added to protect the wet timing belt.

### **Which 5W-30 should I keep in stock?**

Above, we outlined the key differences between various 5W-30 products. The most commonly used and versatile 5W-30 is the Premium Synthetic 05000ESP-X. This product covers about 45% of the fleet for a universal workshop. Would you like to know exactly what percentage of your fleet can be covered with the ESP-X? Then have an MPM fleet analysis conducted for Tailor-Made Oil Advice. Ask your MPM wholesaler for more information.

Visit our website for the product specifications of the 05000ESP-X:



#### **Specifications:**

- ★ ACEA C2, C3
- ★ API SN Plus/SP
- ★ BMW LL-04
- ★ Fiat 9.55535-S3
- ★ MB-Approval 229.51/229.52
- ★ Opel OV 040 1547 - D30 G30
- ★ Porsche C30
- ★ VW 504.00/507.00

#### **In case of technical inquiries:**

contact MPM Technical Support at [support@mpmoil.com](mailto:support@mpmoil.com) or call +31 (0)15 - 251 40 30.



**MPM International Oil Company B.V.**

Cyclotronweg 1, 2629 HN Delft, The Netherlands

Phone: +31 (0)15 - 251 40 30 • Internet: [www.mpmoil.com](http://www.mpmoil.com) • E-mail: [info@mpmoil.com](mailto:info@mpmoil.com)



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