



## 'Ask Hanip'

I currently own a Toyota Yaris 1.5A and my second servicing is coming up pretty soon, hence I was actually looking up on what engine oils to use. Having come across some of these lubricants, I noticed they all carry varying grades and numbers which don't make any sense. I was hoping that you could enlighten me on what SM/SL/SJ and what numbers like 5W-30 mean. Thanks again! DYLON NEO

**HANIP:** Hi Dylan, good choice on the Yaris, it's a fantastic ride! As to your query, well, SM/SL/SJ/ denotes an engine oil's performance level. Oils designed for petrol engine fall under API's "S" (Service) categories, indicated by the letter "S" followed by another letter (for example, SM.)

SM is the most current performance level and is suitable for all automotive engines currently in use. Introduced in November 30, 2004, SM oils are designed to provide improved oxidation resistance, improved deposit protection, better wear protection, and better low-temperature performance over the life of the oil. Some SM oils may also meet the latest ILSAC specification and/or qualify as Energy Conserving.

As for what 5W-30/10W-40 etc. mean? These indicate the oil's viscosity grade. Viscosity is a measure of an oil's flow characteristics, or thickness, at certain temperatures. The low-temperature viscosity (the first number, 5W in a 5W-30 oil) indicates how quickly an engine will crank in winter and how well the oil will flow to lubricate critical engine parts at low temperatures. The lower the number the more easily the engine will start in cold weather.

The high-temperature viscosity (the second number, 30 in a 5W-30 oil) provides thickness, or body, for good lubrication at operating temperatures. A multigrade oil (for example, SAE 5W-30) provides good flow capability for cold weather but still retains thickness for high-temperature lubrication.

Multigrade oils such as SAE 5W-30 and 10W-30 are widely used because, under all but extremely hot or cold conditions, they are thin enough to flow at low temperatures and thick enough to perform satisfactorily at high temperatures. Note that vehicle requirements may vary. Follow your vehicle manufacturer's recommendations on SAE oil viscosity grade.

