

We have received several inquiries into the engine oil requirements for 2005MY and later vehicles. The owners' manual refers to ILSAC and API oil grades, but you may ask "*what are they*"?

There are several organizations that develop, categorize, and license oil grades. The Society of Automotive Engineers (SAE) and the American Society of Testing Materials (ASTM) are involved in the performance parameters of oil development, but we will limit this discussion to the ILSAC and API organizations.

- 1) **ILSAC – International Lubricant Standardization and Approval Committee.** This committee is made up of American and Foreign Automotive Manufacturers that develop the standards/requirements for oil grades.
- 2) **API – American Petroleum Institute.** This organization licenses the approved oil with an API certification mark ('starburst' mark) which identifies the oil as meeting the current requirements set forth by ILSAC. The API also has a symbol of the 'donut' which contains their own API category identification, oil viscosity, and energy conserving designation, if applicable. The API has their own set of categories to identify oil grades. Prior to ILSAC's inception, the API was the only organization to develop oil grade standards.

Since ILSAC's existence in 1992, they have developed 4 different categories of oil grades, they are:

- GF-1** first appeared in **1996**
- GF-2** first appeared in **1997**
- GF-3** first appeared in **2001**
- GF-4** first appeared in **2004**

The categories are backwards-compatible with all previous categories, however they are **not** cross-compatible. For instance, GF-4 can be used in-lieu of GF-3, but GF-3 cannot be used when GF-4 is required.

API has a total of 11 gasoline engine categories in their history, starting with SA through SM (SI and SK have been omitted from the sequence).

Since the new GF-1 category, the API has worked to standardize their categories with the ILSAC standards. Although the categories are not entirely similar, they are compatible up to the current category. API has a separate energy conserving designation "Energy Conserving" which must be present for compatibility with the ILSAC categories.

<b>COMPATIBILITY CHART</b>	
GF-1	SH (Energy Conserving)
GF-2	SJ (Energy Conserving)
GF-3	SL (Energy Conserving)
GF-4	SM (Energy Conserving)

**All 2005MY:**

Oil grade:  
ILSAC: GF-3

- or -

API: **SL (Energy Conserving)** if not available SJ (Energy Conserving) may be used, SL is still the preferred grade.

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**All 2006MY and later:**

Oil grade:

ILSAC: GF-4

- or -

API: SM (Energy Conserving)

GF-3 cannot be used in any 2006MY or later Subaru vehicles. The GF-4 category oil has the lowest phosphorus content of any oil preceding it. Phosphorus has been found to reduce the effectiveness and longevity of the emission system. There are several other important changes that were implemented to increase fuel economy and overall longevity of the engine.

Although most oils will contain both the GF-4 and SM (Energy Conserving) designation, it only needs to meet "GF-4" OR "SM".

Currently the FHI/SIA factory fill oil is 0W-20 mineral oil for the H4 SOHC(w/o VVL) and 5W-30 mineral oil for all others. The oil is designated as SM and GF-4 and is manufactured by Shin-Nihon Petroleum (FHI) and Shell (SIA).

**Clarifications:**

1) Synthetic oil can be safely used provided the viscosity and oil grade classifications as noted in the Owners Manual are used. The oil change interval noted in the maintenance schedule must still be adhered to.

2) Severe Driving Conditions will require the oil change interval to be increased to 3,750 miles or 3.75 months.

**New for 2008:** All turbocharged models are considered to be operated under severe driving conditions and require the oil interval of 3,750 miles or 3.75 months.