



# UNDERSTANDING ILSAC GF-6



## WHAT IS ILSAC GF-6?

The next ILSAC standard for passenger car engine oils, driven by the push for greater fuel economy and resulting engine downsizing that has grown the use of Turbocharged Gasoline Direct Injection (TGDI) engines.

## WHAT'S NEW FOR GF-6?

- Protection against low-speed pre-ignition in TGDI vehicles
- Protection against timing chain wear in TGDI vehicles
- Lower viscosity for enhanced fuel economy: 0W-16 added (GF-6b)
- 7 NEW engine tests for proof of GF-6 performance

## GF-6 IS A SPLIT CATEGORY

### GF-6A



### GF-6B



- GF-6A: Backward-compatible for SAE XW-20 and XW-30 oils, but NOT SAE 0W-16. Uses ILSAC Starburst.
- GF-6B: New standard for SAE 0W-16 ONLY, developed to meet the needs of specific modern engines. Is NOT backward-compatible.

## GF-6B OILS WILL OFFER ADDITIONAL FUEL ECONOMY BENEFITS



Newest Engines are designed to operate on lower viscosity grades.

- GF-6B oils (SAE 0W-16) will have lower Viscosities for enhanced fuel economy (SAE 0W-16)
- Even small increases in fuel economy can result in significant reductions in fuel consumption and carbon dioxide emissions
- High temperature high sheer (HTHS) viscosity corresponds to the resistance to flow between narrow moving parts and mimics crankshaft and connecting rod bearing lubrication
- ILSAC GF-6B oils will have a minimum of 2.3 mPa-s for HTHS viscosity with SAW 0W-16 viscosity or lower



Oils meeting the GF-6B standard (SAE 0W-16) will NOT be backward-compatible unless specified by an OEM. The distinction will be noted clearly on our labels.

## GF-6 PENNZOIL SUMMARY

### GF-6 IS A SPLIT CATEGORY

**GF-6A: Backward-compatible for SAE XW-20 and XW-30 oils, but NOT SAE 0W-16. Uses ILSAC Starburst.**

**GF-6B: New standard for SAE 0W-16 ONLY, developed to meet the needs of specific modern engines.**

Is NOT backward-compatible. Will use a new ILSAC licensing symbol.

### GF-6 REQUIRES 8 ENGINE TESTS (7 OF WHICH ARE NEW).

Shell has completed all of these tests on Pennzoil Platinum line:

Pennzoil Platinum Full Synthetic Motor Oils—SAE 0W-16, SAE-0W-20, SAE 5W-20, SAE 5W-30 and SAE 10W-30

Pennzoil Platinum High Mileage Full Synthetic Motor Oils—SAE 0W-20, SAE 5W-20, SAE 5W-30 and SAE 10W-30

- Today we can state "Pennzoil Platinum is GF-6 Ready"
- Once limits are published, can state "Pennzoil Platinum Meets GF-6 requirements"
- First License Date is May 2020 - First time can officially use GF-6 starburst and API SP donut on pack
- By May 2020, entire Pennzoil Portfolio will meet GF-6 requirements