That Motor Oil Go?

why AMSOIL decided consumers would care.

This is the NOACK Volatility Test apparatus. An oil sample is weighed before the test procedure is begun and after the test is completed. The amount lost by weight, due to volatility, is reported as a percentage.

The gray box houses the oil sample, which is heated to 150°C (302°F). Dry air is passed over the sample carrying off oil vapors with it. The beaker on the right receives the oil that has "boiled off." It works somewhat like a petroleum fractioning tower or still. Acceptable percentages of loss by weight are determined by the grade and weight of the oil that is being tested.

in oils based only in mineral stock. Because they contain less lighter chemical portions to boil off, synthetic products lose less of their lubricating abilities to volatization.

AMSOIL Synthetic Motor Oils maintain their viscosity and provide ongoing cold start protection, fuel efficiency and reduced oil consumption.

An AMSOIL First

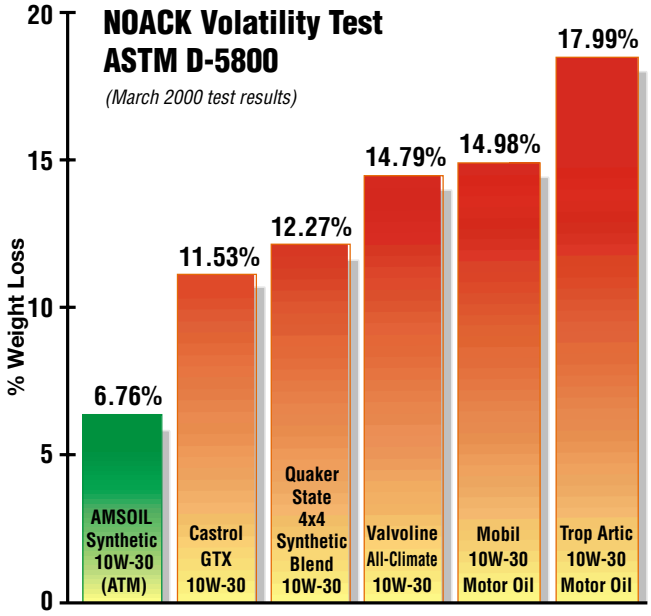
Surprisingly, volatility was not always considered when comparing motor oils. Few oil companies published test results measuring an oil's volatility until the 1980s, when AMSOIL became the first in the United States to publish NOACK Volatility Test results.

In the NOACK Volatility Test the oil is heated to 150° C for a specified period. Lighter oil fractions will "boil off," leading to oil consumption, oil thickening and a loss of performance. The percentage lost, by weight, due to this "boil-off" is reported.

The test has different passing requirements depending on the weight of the oil being tested. For example, 10W-30 oil in the United States may lose up to 22 percent, by weight, and still be "passable." However, with 20 percent gone, the oil suffers significant performance deficits in characteristics such as pumpability and lubricity.

Effective July 1, 2001, a new specification, known as GF-3, allows a maximum of 15 percent loss. European standards, which have been stricter for years, already limit high quality oils to a maximum of 13 percent loss. AMSOIL 10W-30 loses only 6.76 percent to volatility.

AMSOIL reports these results because they enable informed consumers to understand the value offered by synthetic motor oils. Low oil volatility means reduced oil consumption rates, maximum fuel efficiency and higher levels of performance for longer periods of time.



These are the results of a typical NOACK Volatility Test. Improvements in the field of lubrication have led to increasingly lower weight loss percentages for all types of oil. However, synthetics have generally always outperformed mineral oil based lubricants. AMSOIL synthetics consistently boast lower loss by weight percentages than competitors' oils.