

Typical Technical

Relevant ASTM test results are reported on AMSOIL product data bulletins as "TYPICAL TECHNICAL PROPERTIES."

Here is a guide to typical technical properties for AMSOIL motor oils.

KINEMATIC VISCOSITY

Test Number & Name: ASTM D-445 Standard Test Method for Kinematic Viscosity of Transparent and Opaque Liquids

Significance & Use: The proper operation of equipment depends on the proper kinematic viscosity at operating temperature of the oil used for its lubrication.

What it means: Kinematic viscosity is a measure of a liquid's flow under the influence of gravity. It's handy to think of a lubricant's kinematic viscosity as its "I.D. card." AMSOIL formulates its synthetic lubricants to tighter viscosity limits than other manufacturers do, so AMSOIL synthetic lubricants' kinematic viscosities are midrange, close to neither the high or low limit. That helps components work their best and helps the lubricants stay in grade.

VISCOSITY INDEX

Test Number & Name: ASTM D-2270 Standard Practice for Calculating Viscosity Index from Kinematic Viscosity at 40° C and 100° C

Significance & Use: Viscosity index indicates how much a lubricant's viscosity will change according to changes in temperature between 40° C (104° F) and

100° C (212° F), which roughly define the normal temperature range of most operations.

What it means: The smaller a lubricant's viscosity change as a result of temperature change, the higher that lubricant's viscosity index. High viscosity index lubricants, such as AMSOIL products, protect better in operations with temperature variations.

COLD CRANK SIMULATOR APPARENT VISCOSITY

Test Number & Name: ASTM D-2602 Standard Test Method for Apparent Viscosity of Engine Oils at Low Temperature Using the Cold-Cranking Simulator

Significance & Use: Apparent viscosity has been established as a valid predictor of engine-cranking viscosities at specified low temperatures. Apparent viscosity depends on temperature and shear rate.

What it means: Cold cranking viscosity affects the startability of engines and other equipment in cold temperatures. Low cold cranking viscosities, such as those of AMSOIL synthetic lubricants, make for easier cold cranking and more dependable cold temperature starting.

BORDERLINE PUMPING TEMPERATURE

Test Number & Name: ASTM D-3829 Standard Test Method for Predicting the Borderline Pumping Temperature of Engine Oil

Significance & Use: Borderline pumping temperature is a measure of the lowest temperature at which an engine oil can be continuously and adequately supplied to the components of an automotive engine.

What it means: The lower the borderline pumping temperature, the lower the temperature in which the engine is protected by circulating oil. AMSOIL synthetic motor oils' extremely low borderline pumping temperatures assure excellent low temperature protection.

POUR POINT

Test Number & Name: ASTM D-97 Standard Test Method for Pour Point of Petroleum Oils

Significance & Use: The test determines the lowest temperature at which an oil flows as the jar is tilted for a prescribed period. The pour point of an oil indicates the lowest temperature at which an oil may be used in some applications.

