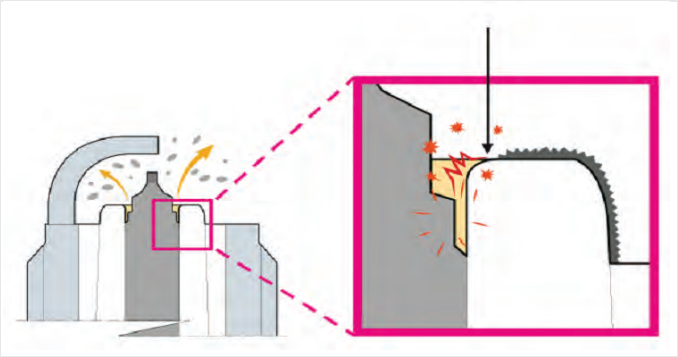
DATA BULLETIN

NGK SPARK PLUGS

Since 1939, NGK has been the world leader in spark plugs. Using top-quality raw materials, NGK designs and manufactures spark plugs for automotive and powersports applications. The primary function of the spark plug is to ignite the air-fuel mixture within the combustion chamber. Over time, spark plugs can become worn or fouled, preventing adequate voltage to create combustion and decreasing vehicle performance. AMSOIL offers four lines of NGK spark plugs to help maintain peak engine performance and efficiency: Iridium IX, V-Power, Standard and Commercial.

NGK Iridium IX

NGK Iridium IX spark plugs provide maximum performance in auto/light-truck and powersports applications. The iridium alloy electrode is extremely resistant to heat, corrosion and electrical wear. The fine wire electrode reduces the amount of energy required to create a spark while providing increased ignition efficiency and superior ignitability. The center electrode of the Iridium IX spark plugs has an extra anti-fouling mechanism. A thermo edge between the center electrode and the insulator nose provides a gap for a secondary micro-discharge to jump and initiate a self-cleaning process.



Secondary Micro-Discharge & Self-Cleaning Action of the Iridium IX

NGK V-Power

NGK V-Power spark plugs offer higher performance in auto/light-truck applications than the standard plug. The V-Power electrode lowers ignition system voltage requirements. It provides better protection against fouling, greater ignitability and improved performance over conventional spark plugs.

NGK Standard

NGK Standard spark plugs provide excellent service for many applications, including auto/light-truck, powersports and small engines. They feature a triple-gasket sealing process that virtually eliminates gas leakage past the shell. Other manufacturers use a one- or two-step sealing process. NGK Standard spark plugs' insulators are made from 99 percent pure alumina silicate, allowing for longer insulator noses for reduced fouling. NGK Standard plugs feature a solid copper core that provides superior heat dissipation and conductivity. Their resistors are produced with a cured glass and carbon mixture to ensure superior performance and durability. Some manufacturers use inserts that break. NGK Standard plugs also have corrugated ribs to prevent flashover and cold-rolled threads to prevent damage to the cylinder head.

NGK Commercial

NGK Commercial series spark plugs are specifically designed for commercial and other small-engine applications, including lawn equipment, trimmers, pumps and generators. Their easy-starting, anti-fouling design helps deliver longer life in heavy-duty and commercial applications.

Anatomy of a Spark Plug

The spark plug serves as a lighter to ignite the air/fuel mixture in an engine's combustion chamber. Spark plug components include a ground electrode, central electrode with copper core, threads, gasket, insulator, seals, leakage-current barriers and a connecting nut (see diagram).

Why NGK Spark Plugs are Superior

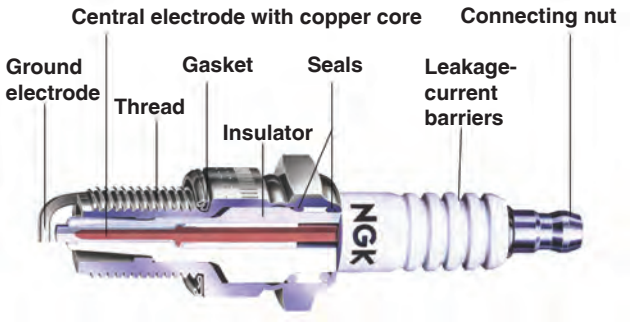
NGK spark plugs are designed to extract maximum performance from the engine throughout its heat range. The center electrode, made of copper, is deeply inserted in the tip to quickly dissipate large amounts of heat. NGK spark plugs incorporate an insulator made of state-of-the-art alumina ceramics for superior insulation and thermal conductivity to dissipate heat and resist thermal shock while providing superior mechanical strength.

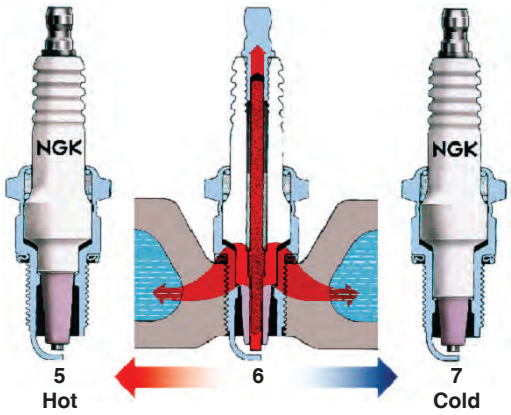
Heat Ratings

A spark plug must dissipate the heat produced by the combustion process. The heat rating is a measure of the amount of heat dissipation the plug is able to provide. A hot plug has a long insulator nose, while a cold plug has a short insulator nose. It is essential to use a spark plug with the proper heat range. OEMs recommend the best plug for stock applications.

AMSOIL Product Warranty

AMSOIL products are backed by a Limited Liability Warranty. For complete information visit www.amsoil.com/warranty.aspx.





WHY CHANGE SPARK PLUGS

Spark plugs require regular maintenance to ensure engines will continue to provide peak performance. Spark plugs wear out over time, becoming worn or dirty and simply losing their spark. As the number of misfires per mile goes up, exhaust emissions are increased and gas and power are wasted.

New plugs help maintain peak engine performance and efficiency. They improve cold-starting and reduce the voltage requirements on the vehicle's ignition system, decreasing the chance of misfire and leaving more amps for the starter and injectors. New spark plugs also minimize the risk of catalytic converter failure, something that is costly to replace. One misfiring spark plug has the ability to dump enough raw fuel into the exhaust to overheat and damage the converter.

Periodic spark plug replacement is a necessary part of routine maintenance. Recommended spark plug change intervals vary according to the type and age of the vehicle. For instance, a 1984 Oldsmobile would probably require plug replacement every 25,000 to 30,000 miles, while a 2007 Chevy Malibu would need replacement every 100,000 miles. Powersports applications vary greatly. In most applications, spark plugs are changed every year.

AMSOIL The First in Synthetics®

AMSOIL products and Dealership information are available from your local full-service AMSOIL Dealer.

AMSOIL INC., 925 Tower Ave., Superior, WI 54880 • 715-392-7101 • Printed in U.S.A.