

Spark plug using a precious metal (iridium alloy) for the center electrode



■ What are the features of the product?

A spark plug ignites a mixture of gasoline and air in an internal combustion engine.

The diameter of the center electrode of spark plugs has been reduced to improve ignitability and fuel efficiency. Our products were the first in the world to use Ir alloy for the center electrode. They have achieved stable combustion while maintaining a long service life. We have contributed to increase the fuel efficiency of vehicles.

■ Why was the product certified as one of the Nittoku Green Products?

Resource saving

Energy saving

Substance of Concern

By using Ir alloy as an electrode material, it has become possible to reduce the diameter of the center electrode while maintaining a long service life.

The diameter of the center electrode is small to allow sparks to concentrate at the tip of the center electrode. This constantly ensures stable combustion and improves the fuel efficiency.

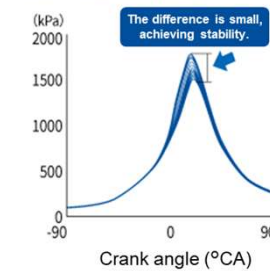
This has contributed to reduce the waste of used Spark plugs and CO₂ emissions.



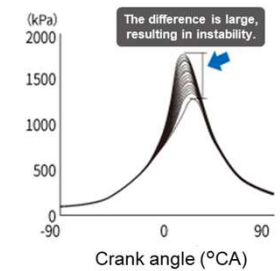
Stable combustion

Sparks concentrate at the tip of the center electrode. This constantly ensures stable combustion and improves the fuel efficiency.

NGK iridium plug



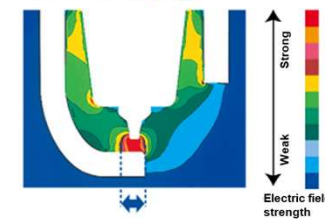
Ordinary plug



Improved ignitability

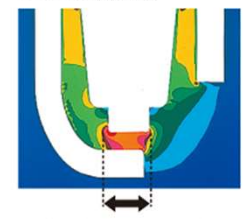
The ultra-small diameter center electrode made from an iridium alloy improves the electric field strength to generate stronger sparks at lower voltages.

NGK iridium plug



The ultra-small diameter center electrode made from an iridium alloy generates strong sparks.

Ordinary plug



Sparks are dispersed and inefficient.

■ Comment from the developers

The increase in the combustion efficiency has achieved stable driving performance and improved the fuel efficiency. Spark plugs are consumables, and the waste can be reduced by extending the service life of the electrode. We have responsibilities to fulfill in the manufacturing industry. We must think about what our products can do for the global environment to realize sustainable consumption and production.