



Bosch spark plugs – technology that also fits for hybrid vehicles

Modern spark plugs such as the Bosch EVO are already suitable for latest hybrid applications and ready for future requirements.

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Charging the high-voltage battery of a plug-in hybrid vehicle

There has been a continuous development of electric vehicles for many years already. As a technology to bridge the gap, the number of hybrid vehicles equipped with both a gasoline engine and an electric drive is increasing as well. These vehicles' combustion engines are subject to the same emission regulations as other gasoline engines. Accordingly, modern Bosch spark plugs can be used for hybrid vehicles without any restrictions.



Bosch EVO spark plug

Bosch spark plugs: fit for hybrids

Car drivers highly appreciate the silent electric motor substituting the gasoline engine in inner-city traffic while effectively supporting it in operations under high loads – a relief for the spark plugs. However, this also implies higher frequency of cooler operating points. This increases the sooting and causes the spark plug to cool down more frequently. Deposits can build up on the insulator nose, which can create a partially conductive, competing pathway. This can result in an inefficient spark or in the worst case in failure to ignite. However, this doesn't occur with Bosch spark plugs as they are subject to cold-start tests implying such an extreme temperature behavior.

Future-oriented technology:

Bosch EVO spark plugs

The hybrid-vehicle car park will continue to grow while the engines will become more powerful and more efficient. Robust Bosch EVO spark plugs are already designed to cope with these upcoming demands.



Broad range of Bosch spark plugs

Cold-start tests for Bosch spark plugs

Phase 1: deep cooling

The vehicle cooled down to -20 °C is shortly driven in first gear, parked and cooled down again.

Phase 2: ignition

After half an hour of cooling, the engine is started again, sped up and gears are switched. Afterwards, it is cooled down again.

Phase 1 and 2 are repeated 10 times.