

DuPont™ Krytox® Lubricants For Spark Plug and Boot Lubrication

HIGH PERFORMANCE LUBRICANTS THAT WORK IN
DEMANDING REAL-LIFE APPLICATIONS

Extreme Conditions. Extreme Performance.



Advantages of DuPont™ Krytox® Performance Lubricants In Spark Plug and Boot Applications

- Excellent dielectric capability
- Prevents silicone bonding between boot and plug
- Sustained engage/disengage forces
- Prevents chemical effects on boot/plug interface
- Boot/plug interface are operable at temperature extremes
- Allows easier assembly

DuPont™ Krytox® Lubricants for the Automotive Industry

DuPont™ Krytox® lubricants exhibit long-term wear resistance, superior lubricity, thermal stability up to 300-350 °C (572-662 °F) [depending on the grade], and will not break down from contact with fluids typically used in automotive applications. Krytox® lubricants also exhibit outstanding dielectric properties, making them an ideal choice of lubricants for automotive electrical applications.

Vehicle Application

The spark plug boot protects the spark plug from weather and prevents the unintentional grounding of the spark energy. The boot is made of a silicone rubber that, over time, can bond with the silicon ceramic of the spark plug, fusing the boot and the spark plug together. Once this occurs, the only way to remove the boot is by force, which can cause enough damage to require replacement of the entire assembly. DuPont™ Krytox® lubricants can prevent this fusion from taking place. These synthetic lubricants are ideal in this application because they are stable, non-reactive, long-lasting, and can withstand the high temperatures and energies of the spark plug environment.

Spark Plug Boot

The extension of engine maintenance intervals to 100,000 miles introduced the problem of silicone bonding between the spark plug and the boot. To address this issue, many auto design engineers are discovering the value of DuPont™ Krytox® high performance synthetic lubricants.

The application of Krytox® grease prevents silicone bonding between the boot and the plug. In addition, the dielectric capability of the interface is improved. Application of Krytox® grease on the threads keeps it from seizing and allows proper seating.



Processing Technique

Krytox[®] general purpose lubricants (“GPL”) greases can be processed and applied with standard grease equipment. Boot suppliers are able to supply and meter Krytox[®] lubricants with high repeatability for quality control.

Superior to Competitive Products Evaluated

Krytox[®] greases have undergone extensive testing by spark plug boot manufacturers to determine durability and effectiveness after aging. Krytox[®] greases have been tested side-by-side with silicone greases, PTFE, and titanium dioxide. In each case, Krytox[®] greases were found to be superior and are now being used by many automakers and boot suppliers to prevent silicone-silicone bonding.

Advanced Options from DuPont

In addition to the standard GPL greases, DuPont has a patent on improved greases for spark plug boots. Contact us for additional information.

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