



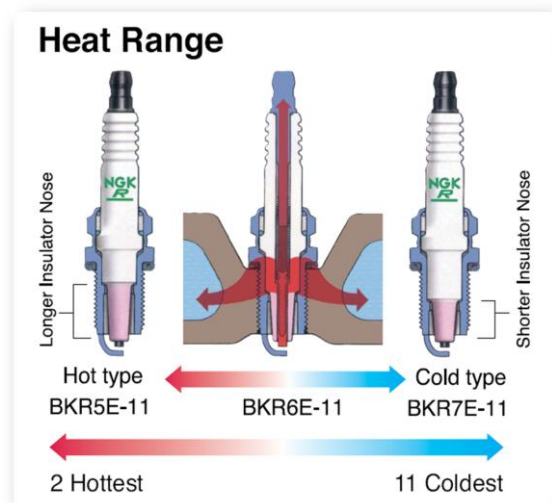
Heat Ranges

One of the most misunderstood aspects of spark plugs is its heat range. It is believed by many that the heat range measures spark temperature or intensity. This is incorrect as the heat range is actually a measurement of the plug's ability to transfer heat away from the tip of the spark plug. One cannot change the temperature of how hot a fuel burns.

A hot spark plug has an insulator design that will be slower to draw heat away from the plug tip (thinner insulator mass), whereas a cold plug has an insulator design that will be faster to draw heat away from the plug tip (thicker insulator mass). For a spark plug to function properly it must have a tip temperature hot enough to invoke self-cleaning, while remaining cool enough to avoid pre-ignition.

For most vehicles, the factory recommended heat range is sufficient; however, on some modified or special use engines alternative heat ranges may be necessary. Often hotter heat-ranges have been used to attempt to correct an underlying fuel or oil consumption problem; this is merely a cover-up fix and the underlying issues will ultimately have to be addressed.

The image below is a representation of the difference between a hot and cold heat range. NGK spark plug's heat range goes from 2 (hottest) to 11 (coldest).



For further information on NGK spark plugs, please call NGK Technical Support at 1-877-473-6767 ext. #2, or visit us on the web at ngksparkplugs.com.