

SINCE
1919
YEARS

 **NGK INSULATORS, LTD.**

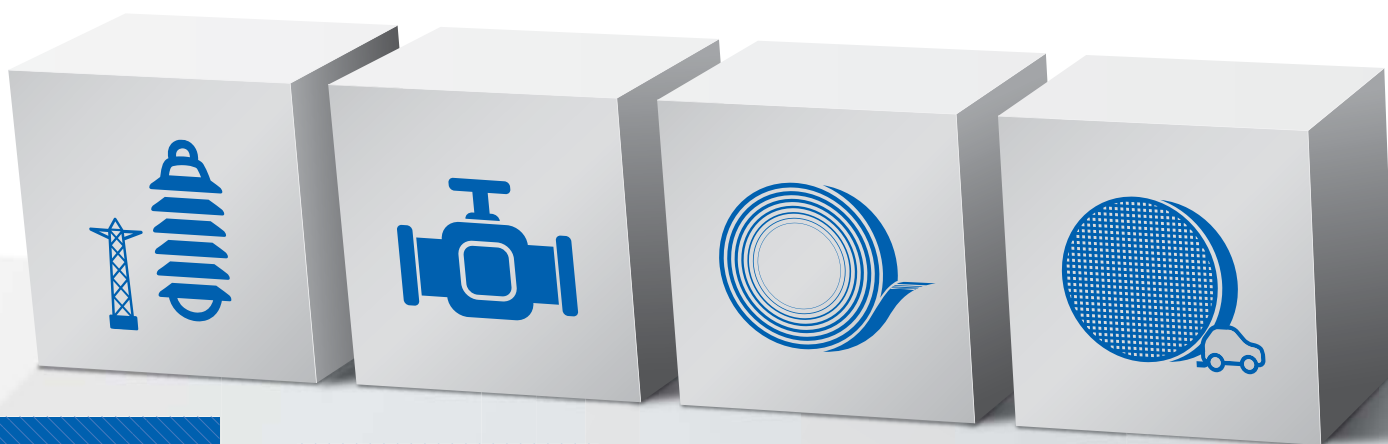
NGK Report 2018



Offering Unique Ceramics Technology to Provide Society with New Value

Here at the NGK Group, we seek to harness the strengths of our core ceramic technologies to pursue opportunities in the energy, ecology, and electronics sectors. Through our activities relating to power supply, ceramics, electronics and process technology, we strive to meet the ever-changing needs of society.

Our main products



Insulators

Insulators support power transmission wires, ensuring that transmission lines and steel towers and equipment are completely isolated. Backed by uncompromising quality and advanced technology, our products continue to make power supply safe and reliable.

Industrial machinery and devices

The breadth of NGK technologies, which were honed over long years of experience in producing ceramics, allows us to provide industrial machinery and devices in a wide range of fields, from kilns to pumps and valves and even low-level radioactive waste treatment systems.

Beryllium copper

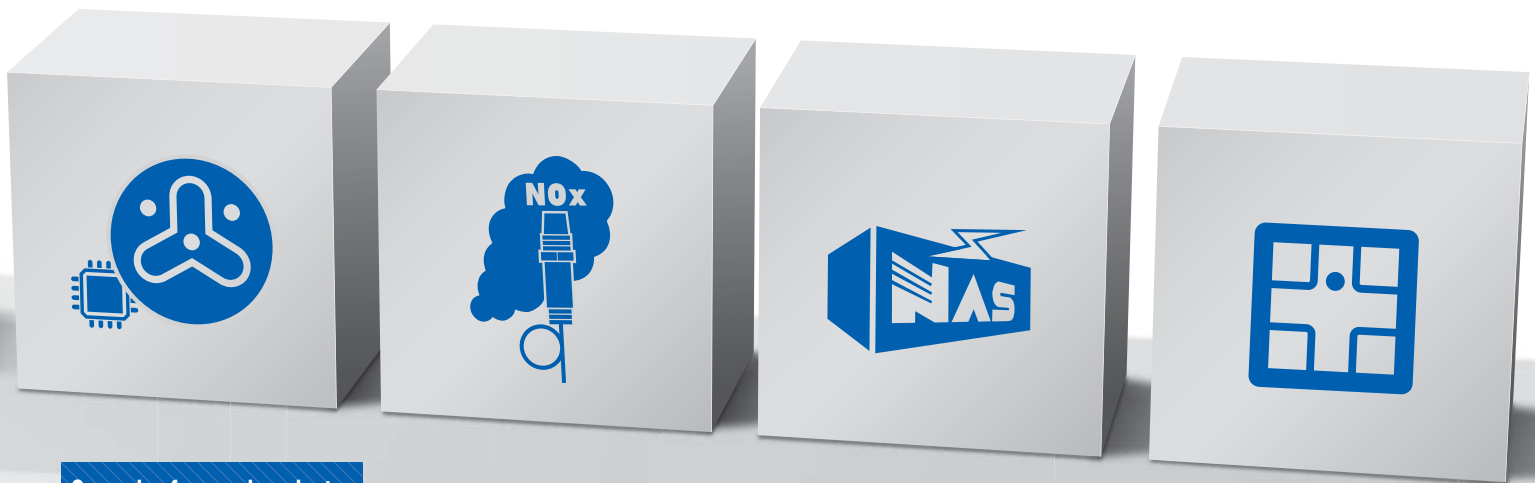
Beryllium-copper alloys, which add the strength and durability of special steel to copper's characteristic heat and electrical conductivity, are used in mobile phones, automobiles, industrial machinery, and a host of other things in order to make a major contribution to improving reliability while reducing product size and weight.

Ceramic substrates for automotive catalytic converters

Ceramic catalyst carriers neutralize the harmful substances in automotive exhaust. Their honeycomb design results in a large surface area—the area that comes in contact with the exhaust—and a very compact installation.

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Ceramics for semiconductor manufacturing equipment

By leveraging the features of ceramics, NGK is able to make a range of ceramic products for semiconductor manufacturing processes that are exposed to high-temperature corrosive gases and plasma.

NOx sensors

NGK has developed the world's first vehicle-mounted sensor capable of measuring the concentration of NOx (nitrogen oxide) contained in automotive exhaust at the ppm (parts per million) level.

NAS[®] battery systems

NGK manufactures megawatt-level electric power storage systems with superior features including large capacity, high energy density, and long service life. They are utilized in stabilizing output from wind and solar power generators while proving useful to the spread of renewable energies and the establishment of smart grids.

Ceramics for electric and electronic machinery

NGK contributes to the advancement of electronics through products such as composite wafers that enable higher quality and higher speeds in communication, and piezoelectric micro-actuators that enable hard disk drives with higher capacity and greater reliability.

Editorial Policy

The publication of the NGK Report 2018 is carried out with the intent of communicating to our stakeholders what strengths the NGK Group has to offer, how we are creating value, how we plan to grow further, and how we are contributing to sustainable development of society and the entire world. This report has been prepared and edited in line with the International Integrated Reporting Framework of the International Integrated Reporting Council (IIRC). Detailed ESG information can be found in the NGK Sustainability Data Book 2018.

Target Organization Indicated along with each article and data report included in this report.

Target Period April 1, 2017 to March 31, 2018

Forward-Looking Statements

This report includes forward-looking statements, such as business forecasts, concerning the NGK Group. Such statements are based on currently available information and reasonable assumptions and projections. However, please note that these assumptions and projections may be affected by various future factors, causing actual results to differ from the presented statements.