

Press Information

Kyocera exhibits its advanced technical ceramics components at Hydrogen Technology Expo Europe

Hydrogen is considered a promising energy carrier in many areas. Especially for this industrial sector, the fine ceramics manufacturer Kyocera has developed advanced components that perform under harsh ambient conditions. The company will exhibit their ceramic components at the Hydrogen Technology Expo Europe 2023 on 27 and 28 September in Bremen.

Kyoto/London, 07th September 2023. The demand for hydrogen solutions and the associated investments in this fast-growing sector are currently on the rise due to their long-term potential. Therefore, Kyocera is also setting benchmarks in this field with its ceramic components in order to make a contribution towards a more efficient and sustainable future. Kyocera's ceramics have the appropriate properties to function dependably in demanding environments. This makes it the perfect material for a wide range of hydrogen applications.

Maximum performance – even in harsh ambient conditions

Despite its many possible applications, the handling and transport of hydrogen continues to be challenging. Thanks to their exceptional material properties, technical ceramics offer new possibilities to overcome these challenges in handling hydrogen. Kyocera supplies high-performance ceramic materials that perform well in harsh ambient conditions, such as in hydrogen processes. Thanks to the excellent mechanical strength and their hermetic sealing technologies, these ceramic products lend themselves to a wide range of applications.

Complete assemblies based on specific customer requirements

Alongside its standardised ceramic components, Kyocera also offers fully customised solutions. Thanks to an enormous variety of moulding methods, years of experience with soldering technology and a wide-ranging portfolio of coating technologies, the company is able to provide complete assemblies on the basis of its customers' needs and requirements. Kyocera's electrical feedthroughs are hermetically sealed and ideally suited for UHV applications. Thanks to the wide range of metal and solder materials available, they can be adapted to suit different conditions, for instance corrosive environments, high mechanical loads, high pressure conditions or extreme temperatures.

Carbon-free hydrogen production

Green hydrogen in particular, which is obtained through the electrolysis of water, is expected to play an even more significant role in the near future. It can be used in a variety of applications and is also the only solution for carrying out certain processes in the chemical industry. It can also, for example, replace much more polluting coal in the steel industry. It is produced by splitting water into hydrogen and oxygen using electricity in a process known as electrolysis. If the electricity required for this process comes entirely from renewable energies, hydrogen production is even carbon-neutral. However, due to the special chemical properties of hydrogen, safety and reliability must be guaranteed throughout the entire value chain. With this critical factor in mind, Kyocera's high-performance ceramic components are ideally suited for handling hydrogen. The company's activities in this field are consistent with Kyocera's sustainable corporate philosophy and commitment to protecting the environment.

Kyocera at Hydrogen Technology Expo Europe 2023

Kyocera will present its product innovations at the Hydrogen Technology Expo Europe 2023, which will take place in Bremen on 27 and 28 September, taking the opportunity to emphasise the advantages of technical ceramics for hydrogen applications. The theme of this year's fair is "Technologies & Solutions for a Low Carbon Hydrogen Future". Kyocera will be exhibiting its products at booth 6E85.

About Hydrogen Technology Expo Europe

[Hydrogen Technology Expo Europe](https://www.hydrogen-worldexpo.com/) is the world's largest and most important trade fair for suppliers of hydrogen technologies, materials, components and engineering solutions. More than 150 international speakers as well as over 10,000 participants and more than 500 exhibiting companies are expected at this year's fair.

Details of the Kyocera stand

Trade Show	Hydrogen Technology Expo Europe https://www.hydrogen-worldexpo.com/ Booth 6E85
Date	27 – 28 September 2023
Venue	Messe Bremen, Germany



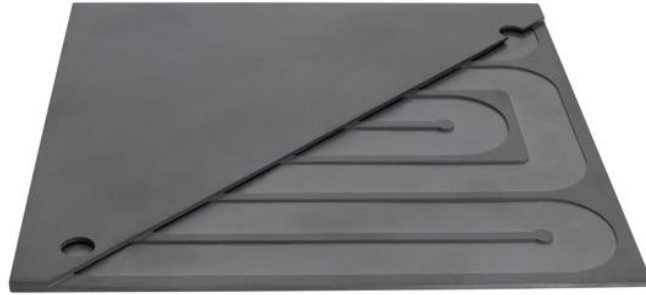
Feedthroughs



Alumina structural ceramics for use in fuel cells



Silicon carbide ceramics for use in heat exchanger systems



Heat exchanger with laminated structure



Containment shell (TiN coated)



Flywheel



High pressure piston

About Kyocera

KYOCERA Fineceramics Europe GmbH is a subsidiary of KYOCERA Europe GmbH, which has been successful in Europe for over 50 years. The Kyocera Group is one of the world's leading providers of high-performance ceramic components for the technology industry, offering over 200 different ceramic materials, as well as state-of-the-art technologies and services tailored to the specific needs of each market.

KYOCERA Europe GmbH is a company of the KYOCERA Corporation headquartered in Kyoto/Japan, a world leader in semiconductor, industrial and automotive components as well as electronic components, printing and multifunction systems, and communications technology. The technology group is one of the world's most experienced manufacturers of smart energy systems, with more than 45 years of industry expertise. The Kyocera Group comprises 297 subsidiaries (31 March 2023). In England, Kyocera has a subsidiary in Frimley, KYOCERA Fineceramics Ltd. With around 81,000 employees, Kyocera generated net annual sales of around EUR 13.87 billion in the 2022/2023 fiscal year.

Kyocera is ranked 671 on Forbes magazine's 'Global 2000' list for 2023, and ranked as 'The 100 Most Sustainably Managed Companies in the World' according to the Wall Street Journal. For the second year in a row, Kyocera qualified for the Dow Jones Sustainability Index (Asia-Pacific) and acknowledged as a 'Top 100 Global Innovator 2023', being one of the world's leading innovators, for the seventh time by Clarivate.

The company also takes an active interest in cultural affairs. The Kyoto Prize, a prominent international award, is presented each year by the Inamori Foundation — established by Kyocera founder Dr Kazuo Inamori — to individuals worldwide who have contributed significantly to the scientific, cultural, and spiritual betterment of humankind (equivalent to approximately €685,000 per prize category).

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