

Press Information

Kyocera presents innovative high-performance ceramics products for "New Space" applications

As one of the leading high-performance ceramics specialists, Kyocera will showcase its products at Space Tech Expo 2022, taking place from November 15th – 17th, 2022 in Bremen, Germany.

Kyoto/London, 03. November 2022. During its presence at Space Tech Expo in Bremen, Kyocera will be focusing on high-performance ceramics technologies for applications in "New Space". Above all, this branch symbolizes an innovative sector of the aerospace industry that poses extreme challenges for the existing material and supply chain industry. Applications in this field require particularly compact designs that simultaneously offer improved properties and functionalities. For example, these solutions enable the next generation of satellites, propulsion systems as well as other aerospace components and systems.

Kyocera's high-performance-materials stand for efficiency and variety

Relevant high-performance ceramics materials such as Cordierite are ideally suited for such applications and enable smaller, more compact and light-weighted systems. Compared to competing materials, Cordierite allows a weight reduction of up to 70 percent and also convinces with a minimal coefficient of thermal expansion. Kyocera's proprietary silicon infiltrated silicon carbide (SiSiC) offers superior strength for designs with cavity structures such as cooling channels or other highly stressed components. In addition, Kyocera has advanced its expertise in the field of oxide high-performance ceramics, which can be used in propulsion systems, for example. Kyocera is also a specialist in high-performance ceramics to metal assemblies for ultra-high vacuum applications.

Perfect properties for the demanding environment of space

Especially in the extreme environment of space, which requires highest precision and reliability, the high-performance ceramics products offered by Kyocera prove their unique properties. Compared to other materials such as metal or glass, high-performance ceramics excel, for example, with high electrical insulation, high tolerance to extreme temperatures and rapid temperature changes, chemical resistance, high wear resistance, as well as high mechanical strength.

All-round-materials for every field

Kyocera manufactures high-performance ceramics components for a wide range of applications – including aerospace systems, industrial equipment, medical devices, and automotive components. To this end, the company offers over 200 different compositions of high-performance ceramics such as Aluminium oxide, Zirconium oxide, Cordierite, Aluminium nitride, Cermet, Mullite, Sapphire, Silicon carbides, Silicon nitride, Aluminium titanate, Yttrium oxide and many more. For a complete list of Kyocera's high-performance ceramics products specifically for space applications, interested parties can visit

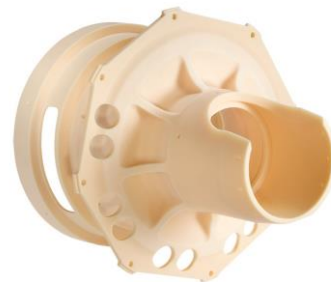
https://europe.kyocera.com/products/fineceramic_components/prd/space_applications/.

Further images can be downloaded by clicking the following link:

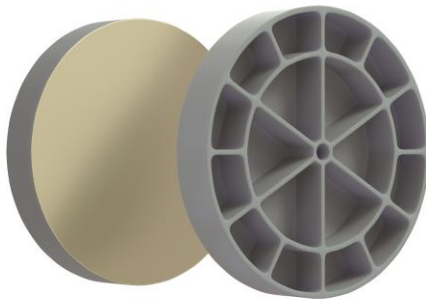
<https://transfer.serviceplan.com/index.php/s/DbA4EKd3fkQLckt> (password: SpaceTech2022)



Beam Position Monitor



Camera housing



Cordierite mirror



Mirror with central metal connector



**Pointing Structure in Satellite
Observation Point**



Tubes rods capillaries

For more information on Kyocera: www.kyocera.co.uk

About Kyocera

Headquartered in Kyoto, Japan, KYOCERA Corporation is one of the world's leading manufacturers of fine ceramic components for the technology industry. The strategically important divisions in the KYOCERA Group, which is comprised of 298 subsidiaries (as of March 31, 2022), are information and communications technologies, products which increase quality of life, and environmentally friendly products. The technology group is also one of the most experienced producers of smart energy systems worldwide, with more than 45 years of know-how in the industry. The company is ranked #665 on Forbes magazine's 2022 "Global 2000" listing of the world's largest publicly traded companies.

With a global workforce of over 83,000 employees, Kyocera posted sales revenue of approximately €13,42 billion in fiscal year 2021/2022. The products marketed by the company in Europe include printers, digital copying systems, semiconductor-, fine ceramic-, automotive- and electronic components as well as printing devices and ceramic kitchen products. The KYOCERA Group has two independent companies in the United Kingdom: KYOCERA Fineceramics Ltd. and KYOCERA Document Solutions Ltd.

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 (approximately €710,000* per prize category).

*Date of Survey: June 15th, 2022

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