

## Press Information

### Kyocera unveils low-resistivity zirconia needle, proven ceramics-based medical technologies

**Kyoto/London, 18. October 2022.** Kyocera's ceramics technology, developed over the last 60+ years, provides a highly durable, long-lasting, non-reactive material to help improving everything from surgical tools and hip implants to kidney dialysis and CT Scan machines.

#### Introducing low-resistivity zirconia needle



Kyocera's durable, 100% inert and reusable low-resistivity zirconia needles offer highly accurate liquid level sensing for the latest in-vitro diagnostics and flow cytometry, maximizing high-performance liquid chromatography (HPLC) equipment. The new

low-resistivity zirconia needle offers excellent mechanical strength, chemical and wear resistance with low friction for a longer useful life compared to stainless steel. Its thinner wall thickness and small precise hole (0.1 to 2.5 (+/-0.002) mm) with precise ID, less carry over, and smaller inner surface roughness (Ra0.05µm~) help ensuring dimensional accuracy for in-vitro procedures including hemostasis, urinalysis, immunoassay analyzers, clinical chemistry analysis, and molecular diagnostics.

#### Rapid prototypes with ceramic additive manufacturing

Kyocera continues its ceramic additive manufacturing [customized 3D printing service](#) for cost-effective prototypes of new medical device designs. The company's highly experienced engineers consult on each new project and devise the most cost-effective method for a 3D printed prototype of new medical device designs. With that consultation and 3D printing using zirconia and alumina, Kyocera can virtually produce any kind of customized prototype in 1-2



weeks. Kyocera's ceramics offer scratch resistance, higher rigidity, temperature resistance, longer lifetime, high-voltage insulation, lighter weight, and superior thermal management, providing an overall lower cost of ownership.



**3D capabilities include:**

- Shapes: curved, square, angled, sharp edges, angled holes, negative draft, threads, textures, tiny holes
- Materials: Zirconia, Alumina
- Size: 200 x 105 x 40 mm
- Tolerance: +/-0.050 mm (as-fired)
- Wall Thickness: 0.25 – 10 mm
- Interlocking Assembly
- Smooth Surface

Kyocera's Fine Ceramics can be found in solutions for kidney dialysis machines; radiation therapy machines for cancer treatment; genetic sequencing; blood separators; X-ray machines, PET, MRI and CT Scan machines; pacemakers and cardiac monitors; neuromodulation devices and RF surgical instruments; drug testing and orthopedic joint replacement systems.



For more information on Kyocera: [www.kyocera.co.uk](http://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 #603 on Forbes magazine's 2021 "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).

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