

**Press Release****When performance matters, it has to be Heraeus: Heraeus Covantics presents three groundbreaking photonics innovations at Laser World of Photonics 2025**

*Hanau, June 18, 2025* – At this year's **Laser World of Photonics Europe** in Munich (June 24–27, 2025), Heraeus Covantics will unveil three pioneering technologies that set new standards in photonics efficiency and performance at booth B1/322. Heraeus Covantics was established in 2025 through the merger of Heraeus Conamic and Heraeus Comvance, combining decades of expertise in the manufacture and processing of high-purity quartz, fused silica and other high-quality materials. The trade fair, accompanied by the **World of Photonics Congress** in the neighboring International Congress Center Messe Munich (ICM), is considered the world's leading platform for light and laser innovations.

**The spotlight will be on three key developments:**

**Suprasil® SmartPlate 150-50** marks the launch of a new generation of synthetic fused silica plates engineered specifically for high-performance laser applications in the near-infrared wavelength range. Thanks to an improved manufacturing process, the SmartPlate features an optimized thickness-to-area ratio for size flexibility, tailored for optics in demanding mirror, cutting, and welding applications. Its very low absorption and high resistance to power density improve the performance of optical components. At the same time, an innovative raw material approach ensures short lead times, high size flexibility, and an attractive total cost of ownership – a smart solution for industrial high-performance optics.

With the new large-format **Fluosil® preform**, Heraeus Covantics sets a milestone in fused silica production. For the first time, manufacturers benefit from preform dimensions that support entire fiber batches, combined with consistently high material quality across the full cross-section. Manufacturers of specialty fibers benefit from significantly lower setup costs, noticeably higher throughput, and reduced process costs – a crucial prerequisite for economical multimode high-performance fibers, for example in medical technology, scientific research, or industrial materials processing.

In addition, groundbreaking **hollow-core fibers** are being presented for the first time for demanding specialty fiber applications. Due to their microstructured design, these fibers guide laser light through an air channel instead of glass, eliminating glass fatigue and minimizing nonlinear optical effects. This innovation enables virtually unlimited peak power handling and represents a breakthrough for ultrafast laser technologies.

On June 26, 2025, Dr. Andreas Langner, Scientific Director Specialty Fiber at Heraeus Covantics, will speak at the SPIE conference "**Optical Measurement Systems for Industrial Inspection XIV**" (World of Photonics Congress, ICM Munich). His talk will explore the key design parameters of large core step-index fibers with fluorine-doped cladding and their impact on high-power light transmission. The presentation will also showcase advanced metrology techniques used to precisely characterize these parameters, ensuring exceptional material quality for high-end fiber applications.

*"Our large fused silica preforms give fiber manufacturers a competitive advantage," says Nikolas Pojezny, CEO of Heraeus Covantics. "At the same time, we are driving forward our vision of enabling a more efficient and sustainable photonics industry through pioneering technologies like hollow-core fibers."*

Visit us at booth B1/322 and connect with our experts to discover how Heraeus Covantics is shaping the future of photonics. More information: <https://www.heraeus-covantics.com/company/trade-shows-and-events/laser-world-of-photonics-europe-2025>

## About Heraeus

Heraeus is a family-owned global technology group headquartered in Hanau, Germany. The company's roots go back to a family pharmacy started in 1660. With its expertise and resources, Heraeus has been making meaningful contributions over generations and is committed to do so in the future. Today, the group bundles diverse activities in four Business Platforms: Metals & Recycling, Healthcare, Semiconductor & Electronics, as well as Industrials. Customers benefit from innovative technologies and solutions based on broad materials knowledge and technological leadership. In the 2023 financial year, the group generated revenues of €25.6 billion (US\$27.7 billion\*) with approximately 16,400 employees in 40 countries. Heraeus is one of the top 10 family-owned companies in Germany.

## MATERIALS. INNOVATIONS. FOR GENERATIONS.

(\* calculated with 2023 average exchange rate, 1€ = 1.0813 US\$)

## About Heraeus Covantics

Heraeus Covantics is a technology leader specializing in the manufacturing and processing of the industry's highest purity quartz, fused silica and other high-end materials such as ceramics and composites. With locations in Europe, USA and Asia, Heraeus Covantics manufactures semi-finished products, complex system components and custom-tailored solutions made of quartz glass, fused silica and ceramic materials. They are used in the data transmission and telecommunication industry, the production of specialty optical fibers for industrial and medical applications, semiconductor manufacturing and optical applications among others.



**Image 1: Heraeus\_Covantics\_LaserWOP25\_KeyVisual.jpg**

Caption: When performance matters, it has to be Heraeus

Image source: Heraeus Covantics



**Image 2: Heraeus\_Covantics\_Nikolas\_Pojezny.jpg**

Caption: Nikolas Pojezny, CEO of Heraeus Covantics

Image source: Andreas Reeg

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