

Laser World of Photonics 2022: CeramOptec presents Multicore fibers for industrial laser applications

Metal-coated Harsh-Environment fiber optics as the second trade fair innovation

Multi-core fiber optics for laser applications and metal-coated special fibers for harsh-environment applications are the focus of CeramOptec's presentation at Laser World of Photonics. In addition, the fiber optics specialist will provide an overview of its complete glass fiber portfolio for industry, medicine and laboratory technology - including customized fiber production.

Bonn/Livani, 08.04.2022 - Fiber optics specialist CeramOptec will be showcasing the complete range of its fiber optic solutions for industry, medicine and laboratory technology at Laser World of Photonics (26 to 29 April in Munich). New to the range are multicore fiber optics with concentric arrangement of the cores, intended for applications in laser technology, as well as metal-coated special fibers for harsh environments. In addition, the biolitec subsidiary is presenting fiber optics for active laser beam shaping, for long-term UV irradiation and for transmission-sensitive analyses in sensor technology and spectroscopy. In addition to individual fibers, pre-assembled fiber optic bundles will also be presented for several fiber types. CeramOptec will also be providing information on all stages of its customized glass fibre production - from preform manufacture to the end product.

The multicore fiber optics with concentric cores were primarily developed for fiber-coupled industrial lasers and enable better control of power density and beam shaping. They are available ex works in versions for the wavelength ranges from 190 to 1,200, 300 to 2,400 and 700 to 2,400 nm and with numerical apertures between 0.10 and 0.28. Fiber jackets made of nylon, acrylate, ETFE (ethylene tetrafluoroethylene) or other particularly resistant materials are available for high-temperature and high-vacuum applications or for use in conjunction with aggressive chemicals. Individual fiber designs are also possible, for example with polygonal core geometries. This customization option is also available for the highly temperature- and reaction-resistant Harsh Environment fibres, which CeramOptec offers with coatings made of aluminium or tin. They are available as standard with numerical apertures between 0.12 and 0.28 and in versions for wavelengths from 190 to 1,200 nm or 300 to 2,400 nm. Aluminum coatings even hermetically seal the fibers and enable them to withstand temperatures from -196 to +400°C. Last but not least, the applied metal layer also makes it possible to solder the fiber.

In addition to these trade fair innovations, CeramOptec will be presenting the Optran[®] NCC fibres with polygonal core geometry for active laser beam shaping in ablation, coating or cutting applications as well as the solarization-resistant Optran[®] UV NSS fibres for long-term use in UV spectroscopy or UV curing. Also on board are the germanium-doped Optran[®] Ultra WFGE fibers, developed for sensory and spectroscopic applications with particularly high demands on the durability and transmission quality of the fiber optics.



Interested parties can find CeramOptec in Hall B5, Stand 213. Further information on CeramOptec fiber optics is also available online at www.ceramoptec.com.

About CeramOptec

CeramOptec® (Bonn) in cooperation with Ceram Optec SIA (Livani/Latvia) specializes in the production of multimode optical waveguides made of quartz glass. The medium-sized company was founded in 1988 and is now a subsidiary of biolitec AG, one of the world's leading medical technology companies in the field of laser applications. With subsidiaries in China and Malaysia as well as distribution partners in France, Belgium, the Netherlands, India, Japan, Korea and the USA, CeramOptec is not only strongly represented in Europe, but also in the Asian and North American markets. The product range includes fibers, fiber bundles, assemblies and cables for numerous applications, including industrial and medical laser applications, sensor systems in aerospace and spectroscopic applications in astronomy and the chemical industry. The biolitec group employs a total of 285 people.