

NEWS RELEASE

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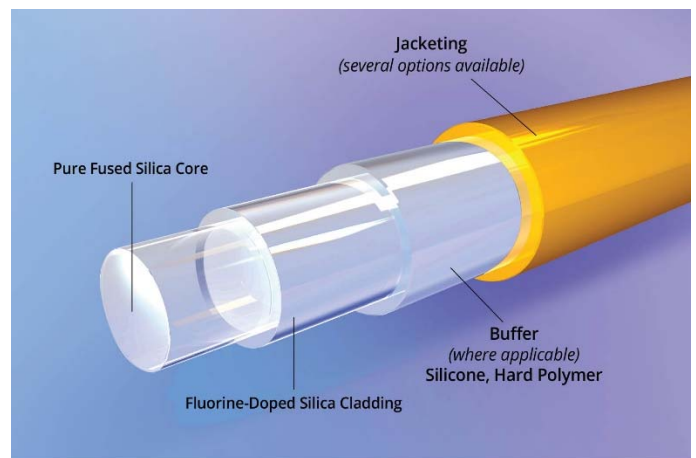
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For Immediate Release

Armadillo SIA Introduces Highest NA Pure Silica/Silica Core Fibers – Optran® Plus UV/WF

- New **Optran Plus UV** and **Optran Plus WF** are the highest numerical aperture (NA) pure fused silica core fibers available and will be showcased at SPIE BiOS/Photonics West 2023.

Riga, Latvia – January 12, 2023 – Armadillo SIA (www.armadillosia.com), a leading global provider of specialized optical fibers, sub-assemblies, and hybrid photonic solutions and customized fibers, announces the **Optran® Plus UV** and **Optran Plus WF** (water-free), featuring the highest numerical aperture (NA) pure fused silica/silica core fibers currently available. The fibers will premiere at SPIE BiOS in booth #8353 and Photonics West in booth #3353, Moscone Center, San Francisco, Jan. 28 - Feb. 2, 2023.



Armadillo SIA's innovative Optran Plus fibers are created using a proprietary preform production process that utilizes Plasma Outside Vapor Deposition (POVD) and Plasma Chemical Vapor Deposition (PCVD) technology to produce material rods with a fused silica core and a fluorinated silica cladding. As a result of both deposition processes, thin, fluorine-doped quartz layers are deposited on the surface of the silica core, enabling preforms with lengths of 300 mm to 1100 mm. Using this unique dual fabrication process, it is possible to achieve highly challenging geometries such as square, rectangular, pentagonal, hexagonal, octagonal, and even customized shapes.

The new fibers deliver exceptional spectral transmission from 190 nm to 2400 nm with lower optical losses and offer extremely high coupling efficiency. With numerical apertures of 0.10 to 0.30, respectively, and core diameters available from 50 to 2000 μm , the new pure fused silica/silica core fibers are ideal for a broad range of applications from spectroscopy to sensing.

According to Armadillo SIA's business development manager, Mario Paredes, "We are one of very few facilities in the world that covers the entire manufacturing chain from the preform to the assembled fiber bundle and we are the only in-house facility that creates preforms using both POVD and manufacturer-specific PCVD processes. The preform establishes optical properties and the geometry of the fiber drawn from it. Our in-house production gives us full control over these parameters, giving us the unique capability to quickly adapt to our customers' requirements."

To learn more about Armadillo SIA's **Optran Plus UV** and **Optran Plus WF High NA Pure Silica/Silica Core Fibers**, please download the data sheet here:

<https://armadillosia.com/index.php/products/fibers/optran-plus-uvw/>. For more information about the Silica Preforms enabled by POVD and PCVD processes at Armadillo SIA, please view the data sheet here: <https://armadillosia.com/index.php/resources/> and click on "Preform Technology".

The technical white paper on "Effect of the preform fabrication process on the properties of all-silica optical fibres," by A. B. Grishchenko, is available here:

<https://armadillosia.com/index.php/press/>.

For more information about the company's unique and customizable photonic solutions, please visit: www.armadillosia.com.

Armadillo SIA (Riga, Latvia - www.armadillosia.com) is a global leader in specialty fiber optic solutions, including fibers, bundles, cables, and customized hybrid photonics sub-assemblies. The company offers a wide range of expertise from needs evaluation to prototype and mass production.

Armadillo SIA's vertically integrated manufacturing with outstanding quality control protocols, begins with preform fabrication, utilizing two types of deposition processes. Cables and assemblies are made in-house using their top quality fibers and your choice of a broad range of sheathing, cabling, or jacketing. In addition, they offer all standard connectors or custom designed ferrules to suit applications from the deep UV to MIR. This provides Armadillo SIA the opportunity to support customers with challenging, specialized custom projects while offering competitive pricing and quick delivery.

Armadillo's specialty optical fibers and assemblies are employed in lasers, spectrometers, spacecraft sensing and controls, precision devices for medical diagnostics, particle detection, mission-critical fields like nuclear physics, semiconductor manufacturing, life sciences, forensics, avionics, industrial applications, and more.