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For Immediate Release

Armadillo SIA Offers Silica/Silica Non-Circular Core (NCC) Fibers with a Variety of Core Geometries

• New Silica/Silica Non-Circular Core (NCC) Optical Fibers are ideal for laser surface treatments and astronomy applications.

Riga, Latvia – September 23, 2021 – Armadillo SIA (<u>www.armadillosia.com</u>), a leading global provider of specialized optical fibers, sub-assemblies, and hybrid photonic solutions, introduces

two silica, multi-mode optical fiber products, ideal for laser and astronomy applications. The **Optran® UV NCC**, Ultraviolet Non-Circular Core Fibers, operate from 190 nm -1200 nm and the **Optran® WF NCC**, Water-Free Non-Circular Core Fibers, operate in the 300 nm - 2400 nm spectral range.



The company's innovative silica fiber cores are available in a variety of shapes to offer greater coupling efficiency,

including rectangular, square, octagonal, hexagonal, and other custom geometries depending on customer specifications. Although the optical fiber cores are various shapes, the Optran UV/WF NCCs' silica cladding (outer layer surrounding the core) is circular to accommodate most standard fiber cable connectors. For improved packing density with multi-fiber bundle assemblies, Armadillo also offers Non-Circular Form (NCF) fiber versions of this product. NCF has a fluorinated silica cladding that mimics the shape of the fused silica core, with optical properties identical to NCC.

Armadillo's non-circular core fibers operate from ultraviolet to visible out to the near-infrared (NIR) spectrum. Other features include homogeneous power distribution and very low numerical aperture (NA) expansion, making them ideal for applications where the shape and homogeneity of the output beam is critical. With excellent image scrambling characteristics and high laser damage resistance, the new Optran family of UV and WF NCC fibers eliminates the need for laser beam shaping optics. These features combine to offer greater flexibility and more cost-effective optical fibers for a variety of fiber-bundling tasks.

Armadillo SIA offers both plasma chemical vapor deposition (PCVD) and plasma outside chemical vapor deposition (POVD) manufacturing processes to obtain the desired core and fiber shape, depending on customer requirements. To view the data sheet and learn more about the Optran UV NCC and Optran WF NCC silica/silica non-circular core optical fibers, please go to: https://armadillosia.com/wp-content/uploads/2020/05/Optran_NCC_NCF_combo-1.pdf

According to Armadillo SIA's business development manager, Mario Paredes, "We are excited to introduce our non-circular core fiber products. With our vertically integrated manufacturing and stringent quality control protocols from preform to finished fibers, cables, bundles, and custom sub-assemblies, we are exceptionally poised to meet demanding customer requirements with shorter lead times and competitive pricing. We are committed to providing our customers with the best support available in this market."

Armadillo SIA (Riga, Latvia - <u>www.armadillosia.com</u>) 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.

We provide high-quality bulk fiber for manufacturing and specialized or customized finished bundles and assemblies to meet demanding customer specifications. Our vertically integrated manufacturing with outstanding quality control protocols, begins with preform fabrication, utilizing two types of deposition processes depending on our customer's needs. We welcome challenging custom projects and offer competitive pricing with 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.

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