

# Innovative Fiber Solutions for Medical Devices

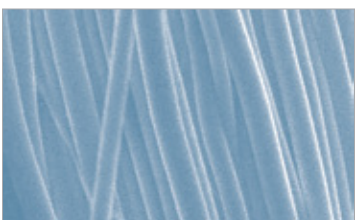
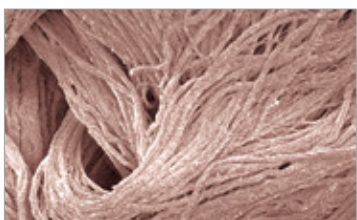
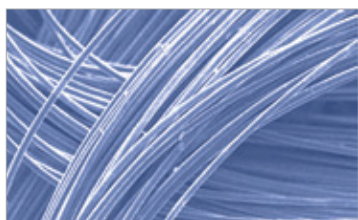
micro-extrusion





*ARmicron™ engineered medical fibers from ARmark Authentication Technologies, LLC deliver the fiber construction, material and process versatility, and manufacturing controls that the world's leading medical device manufacturers are seeking to develop safe and effective products.*

micro-extrusion

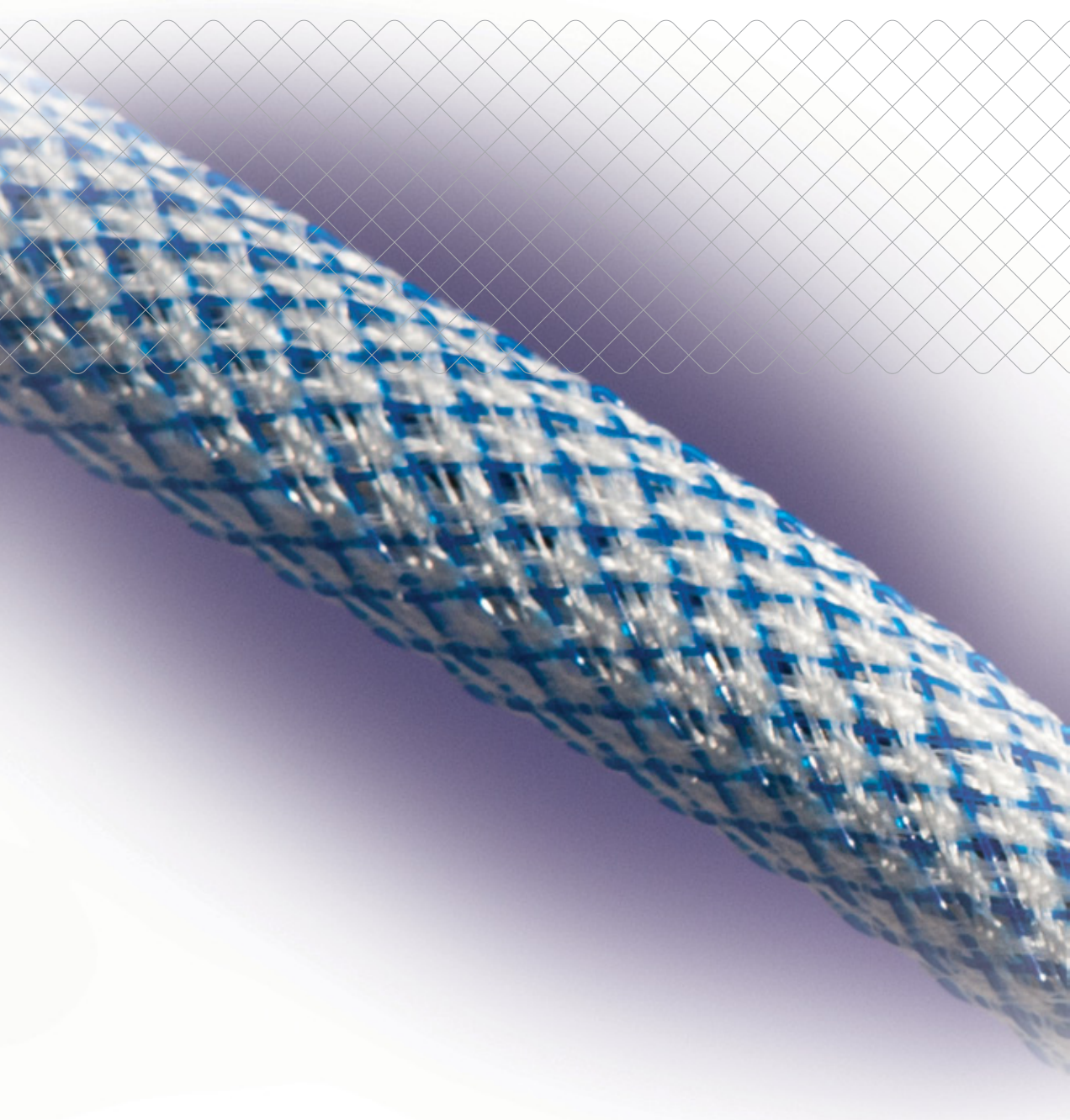


# HIGH-DEFINITION MICRO-EXTRUSION TECHNOLOGY

ARmicron™ engineered medical fiber technology is made possible through a unique melt spin process known as high-definition micro-extrusion (HDME). Through this process, monofilament, multifilament and fine denier fibers are manufactured from a wide range of select biocompatible non-resorbable or bioresorbable polymers. ARmicron HDME technology enables the development of multi-component fibers with highly resolved internal domains using a modified “islands in the sea” approach. Fibers can also be developed with external submicron surface architectural definitions that may be beneficial for directional cellular ingrowth.



*The ARmicron HDME medical fiber technology is available from ARmark Authentication Technologies, LLC. ARmark is a wholly-owned subsidiary of Adhesives Research, Inc.*



micro-extrusion

# MANUFACTURING IN A STATE-OF-CONTROL

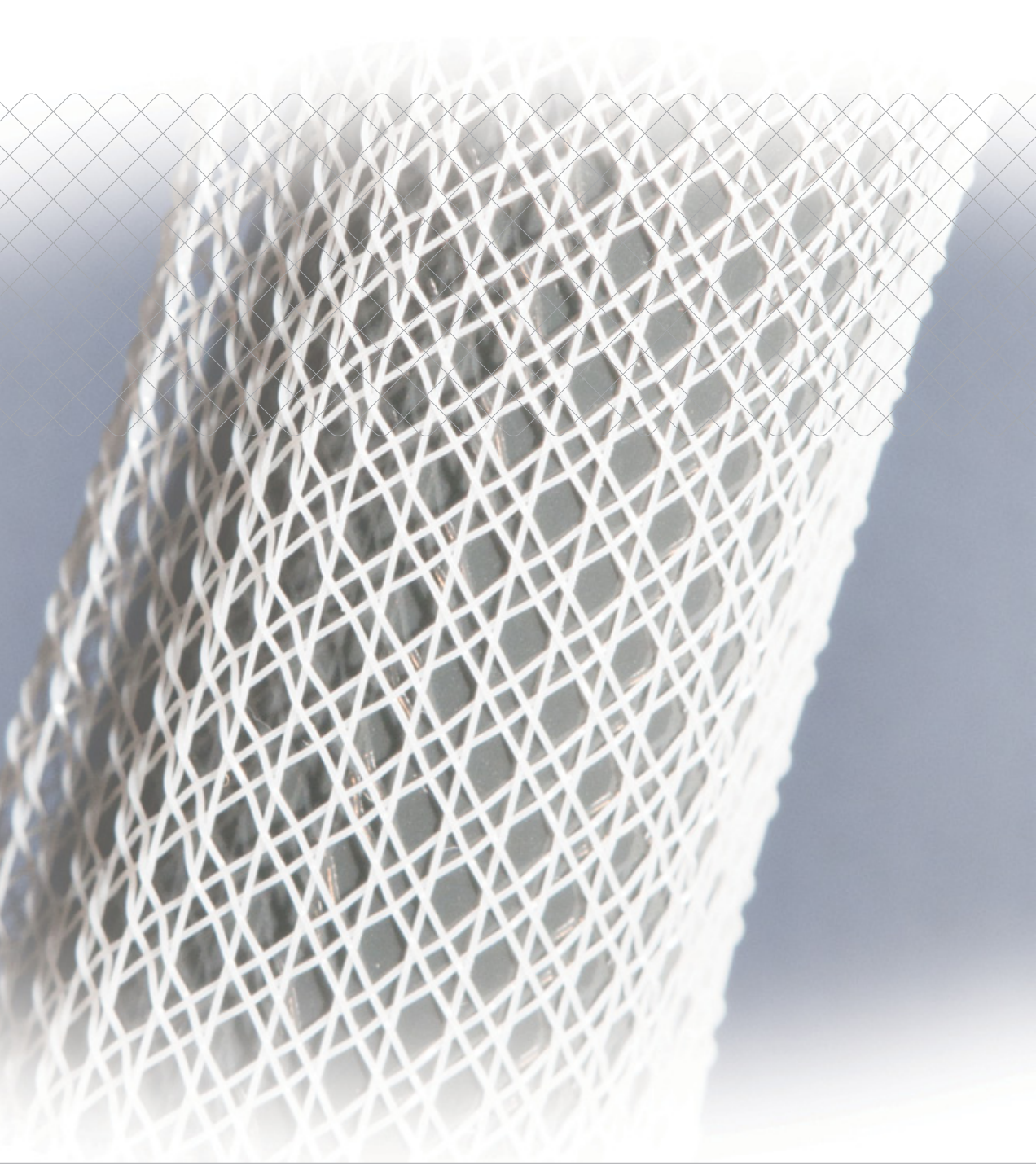
ARmicron engineered medical fibers are manufactured in a certified Class 10,000 clean room with compliant materials provided by a fully transparent, secure supplier base. Our validation master plan provides the guidance to assure that our facility, processes and related test methods remain validated and operate in a state-of-control. ARmark's ISO 9001 certification and enhancements from the cGMP guidelines are the foundation of our quality systems.

## CUSTOMIZATION

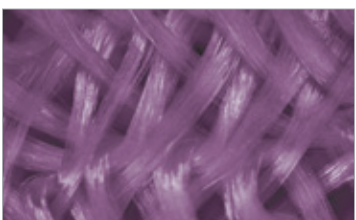
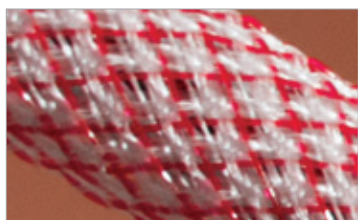
We are a custom developer of monofilament and multifilament fibers and yarns for medical devices. We take a collaborative approach and use a documented stage-gate development process to assure products will meet each client's set of specifications. Products are developed and manufactured with our HDME melt-spin fiber technology in a state-of-the-art clean room facility with qualified materials and validated processes.



*ARmicron medical fibers are custom manufactured to each client's specifications. The fibers may be comprised of resorbable or non-resorbable resins and have tailored physical properties (denier, tenacity, elongation and shrinkage).*



micro-extrusion



# APPLICATIONS FOR TODAY AND TOMORROW

Medical fibers have historically been used in surgical meshes, sutures, stents and grafts. Today the ARmicron HDME fiber technology brings the added benefits of enhanced fiber design with increased manufacturing and supply chain control. ARmicron's HDME technology also brings new design and functional flexibility to applications in controlled drug delivery and tissue engineering. This is possible through ARmark's unique custom design capabilities for producing fibers with multi-polymer gradients, isolated cross sectional domains, and precise internal and external surface structure definition.

[www.armicron.com](http://www.armicron.com)



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**DISCLAIMER:** Users should test the product to ensure it meets the specific needs of their application(s). ARmark Authentication Technologies, LLC can tailor the product to meet the needs of specific applications as required by customers.

**TRADEMARKS:** ARmicron™ is a trademark of ARmark Authentication Technologies, LLC.

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