

**For immediate release**

**NEW FIBER COATING TECHNOLOGY  
WITHSTANDS HIGH POWER, TIGHT BENDS**

AVON, Conn. (January 23, 2007) – OFS Specialty Photonics Division has introduced optical fibers with the new hard clad silica (HCS<sup>®</sup>) fiber coating that can better withstand severe bends during power. This coating results in a more robust and reliable fiber that will perform better under today's more demanding conditions.

High power lasers are used for existing and emerging medical procedures. In recent years laser power levels have increased and the scopes used to introduce and direct the fiber are more flexible than the original semi rigid scopes these fibers were designed for. Damage occurs when laser energy escapes the core into the cladding or energy that has been contained in the cladding impacts the secondary coating which in turn can lead to damaged fibers and scopes.

According to Mick Speciale, OFS Marketing Manager for Medical Products, "We collaborated with key laser manufacturers to understand fiber failures in the field and worked with them to provide a more durable and better performing fiber for today's surgical procedures."

In a recent study fibers were tested on a Holmium YAG laser at 2.1 $\mu$ m while delivering up to 100 Watts and bent as tight as 5mm in diameter for a 365 $\mu$ m core size fiber. The study compared the performance of three types of fiber:

- Pure Silica Core/FI doped Clad/Standard HCS fiber coating .22 NA (Sample A)
- Pure Silica Core/FI doped Clad/Optimized HCS fiber coating .22 NA (Sample B)
- Ge doped Core/Pure Silica Clad/Optimized HCS fiber coating .29 NA (Sample C)

Although the mechanical strength of each of the fibers was similar, they performed differently under power. Because fiber C has a larger buffer diameter and glass diameter, the median breaking diameter appeared to be larger. However, when under 100W of laser power, the median breaking diameter for fiber A increased to 23.5mm; the breaking diameter of fiber B changed 0.9mm to 5.47mm; but there was almost no change in the breaking diameters of fiber C with and without power.

"This testing shows very little difference in break diameter with or without power, meaning the fiber is very well suited for multiple and single use high power surgical procedures. The new HCS fiber coating can be applied to all of OFS's family of medical products," said Speciale.

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### **About OFS**

OFS is a designer, manufacturer, and supplier of leading edge optical fiber, optical fiber cable, optical connectivity and specialty photonics products for a wide variety of applications and industries. OFS, formerly the Optical Fiber Solutions division of Lucent Technologies Inc., has a proven track record of being first in the industry with application specific fibers, optical connectors, ribbon cables, erbium doped fibers, Raman fiber lasers and more. OFS is committed to providing customers increased value by offering products that deliver lowest cost per bit network solutions, protecting investments through future flexible solutions.

OFS distributes its optical fiber, optical fiber cable, optical connectivity and specialty photonics products directly to end users, as well as through valued distributors, external cable customers and equipment vendors.

OFS is owned by Furukawa Electric, Co., Ltd. a multi-billion dollar global leader in optical communications. Headquartered in Norcross, GA, OFS operates facilities in Avon, Connecticut; Carrollton, Georgia; Somerset, New Jersey; and Sturbridge, Massachusetts, as well as facilities in Denmark, Germany and Russia. For more information about the Specialty Photonics Division, please visit: [www.SpecialtyPhotonics.com](http://www.SpecialtyPhotonics.com)

For more information about OFS, visit: [www.ofsoptics.com](http://www.ofsoptics.com)

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