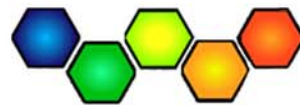


Sapphire Optical Fiber



Photran is the world leader in the production of sapphire optical fiber. Sapphire's unique combination of properties provides innovative solutions in the areas of *Sensor Development* and *Laser Energy Delivery*.

- High Temperature
- IR Transmission
- Chemically Inert
- High Laser Damage Threshold

Standard Fiber Core Sizes
150, 250, 325, 425 (micron).
Available in up to 2 meter lengths! Special orders of up to 3 meter lengths.

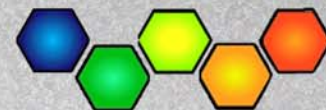


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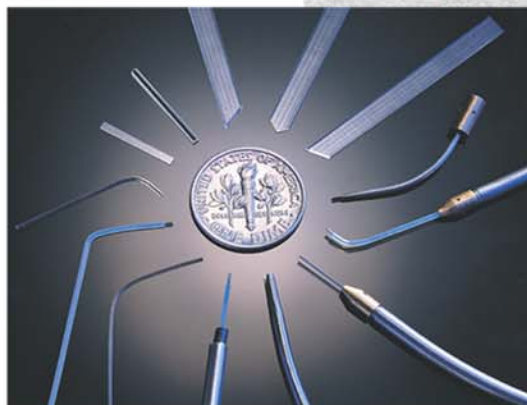
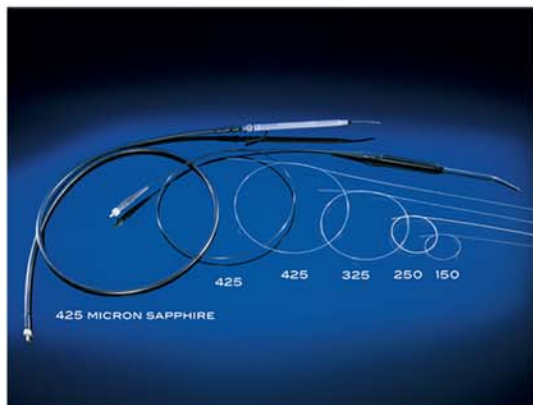
www.photran.com

Sapphire Optical Fiber



Photran's single crystal sapphire fiber is available in a full range of sizes. Value added services include custom cable design and assembly, and a proprietary bending process for curved tips.

Individual Fiber or Complete Assemblies



Custom Assemblies

- Flexible Bundles
- Flexible, Durable Assemblies
- Full Delivery Systems and Hand Pieces

Sapphire Tips and Probes

- Straight Tips
- Curved / Bent Tips up to 90°
- Tapered Tips and Specials

Design Considerations

LASER ENERGY DELIVERY- Sapphire Optical Fiber enhances the utility of numerous laser systems by providing an energy efficient, durable and flexible means of delivering the laser energy to the point of use.

- High laser damage threshold (1200 J/cm²)
- High Melting point (2053°C) enables high repetition rates and average power.
- Biocompatible, non-toxic, USP Class VI Approved- (Passes both Implant and Elution)
- Flexible: bend radius as low as 20mm for 150 micron fiber diameter.

SENSOR- Sapphire Optical Fiber is an ideal material for sensor applications where reliable performance is required in extreme environment conditions.

- Chemical Resistant
- Maintains integrity at high temperatures
- High transmission from visible to beyond 3 microns
- Tough and durable

Fiber Core Diameter (micron)	Minimum Bend Radius (mm)
150	20
250	30
325	60
425	80
Effective Numerical Aperture	.12

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