ofs
A Furukawa Company

OPTICAL FIBER SOLUTIONS

FOR SENSING APPLICATIONS

KEY CAPABILITIES AND BENEFITS

- Numerous fiber coating systems available
- Pure core Single-mode optical fiber for use with Coherent Rayleigh (DAS) and Brillouin backscatter (DSS) system
- Customizable Fiber Bragg Gratings (FBG) to support various sensing needs
- Fiber performance and reliability tuned for the needs of various harsh environment applications
- Numerous methods of product design to help negate the effects of hydrogen ingression when installing in high temperature, high pressure environments

COMMON SENSING TECHNOLOGIES

- Temperature – oil wells, pipelines
- Strain – pipelines, composite structures*, civil structures
- Acoustics – pipelines, railroads
- Shape – medical instruments, composite structures*

* (Aircraft wings and wind turbine blades)

LINEASENS™
DISTRIBUTED SENSING TECHNOLOGIES FROM OFS

www.ofsoptics.com

Coating Systems to Match Your Application

Beyond glass engineering, we provide expertise in coating of optical fibers by offering a wide variety of materials to protect fibers in environmental and installation-related challenges. Consult our team to learn more.

Coating Systems

Material	Temperature Range	
PYROCOAT	-196 to +300 °C	A polyimide coating that results in a reduced diameter fiber that withstands high temperatures.
Silicone	-60 to +200 °C	A temperature resistant layer of soft material that resists chemicals, provides compressive relief, and is easy to grip
Silicone/Acrylate	-65 to +130 °C	An easily stripped outer buffer for use up to 160 °C
PEEK	-55 to +240 °C	Excellent strength and stiffness, chemically resistant to acids, salts, and oils at high temperatures
PFA	-200 to +260 °C	Chemically resistant to acids, salts, and oils at high temperatures with good UV performance

Optical Fibers for Coil Applications

Many fiber optic sensors utilize tightly wound precision coils. Designing fibers that enable our customers to minimize coil package size while improving device reliability and splicing compatibility is a challenge we prepare for. The following table lists a few fiber alternatives to consider for your coil applications. The table below highlights a few fibers designed for coiling applications in accelerometer, hydrophone, acoustic and current sensing devices.

Product Specifications

Part Number	Fiber Type	Operating Wavelength	Coating Diameter	Cladding Diameter	Cutoff Wavelength	Coating	Temperature Range
Accutether® 80	Single-mode	1550 nm	160 µm	80 µm	< 1500 nm	Dual Acrylate	-40 to +85 °C
Accutether 125	Single-mode	1550 nm	245 µm	125 µm	≤ 1300 nm	Dual Acrylate	-40 to +85 °C
BF06159	Single-mode	1550 nm	130 µm	80 µm	≤ 1500 nm	Single Acrylate	-40 to +85 °C
BF06160	Single-mode	1310 nm	200 µm	125 µm	< 1300 nm	Single Acrylate	-40 to +85 °C

NOTE:
The listed operating temperature ranges are general guidelines. Consult with our Technical Sales department to determine the optimal coating and jacketing material for your specific application at 1.860.678.6636. For detailed product specifications please visit www.ofsoptics.com or contact us directly at 1.860.678.6636.

For additional information please contact your sales representative.
You can also visit our website at www.ofsoptics.com or call 1-888-fiberhelp (1-888-342-3743) USA or 1-770-798-5555 outside the USA.