Bragg Gratings in Polyimide Coated Fiber

**OFS PYROCOAT®** polyimide coating enables the use of optical fibers in harsh environments. Polyimide is a heat-resistant polymer that performs to 300 °C and has high strength, abrasion- and chemical-resistance. Applied to a thickness of only 15 µm, the result is a small form factor fiber of 155 µm diameter.

OFS now offers fiber Bragg gratings in polyimide coated fiber. A grating is a selective wavelength filter in the core of an optical fiber that is used to measure strain or temperature. Extending our gratings technology to include polyimide coated fibers will benefit applications such as oil and gas sensing, structural sensing, industrial processing or avionics sensing.

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In grating fabrication the coating is stripped so that Bragg grating exposure can occur.

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After grating is written, the stripped region is recoated with polyimide. Recoat span includes the non-stripped buffer to either side of the grating to ensure reliable coverage.
Custom Grating Worksheet

Use this worksheet to specify a custom fiber Bragg grating or array. When you have made your specifications, please fax this worksheet to: (860) 674-8818. A representative will call to discuss your gratings requirements.

Optical Parameters

Fiber type required: ________________________________

Center Wavelength:

__________________________ nm with ± tolerance of  

__________________________ nm

Bandwidth:

__________________________ nm with ± tolerance of  

__________________________ nm

@ level: transmission ____________________________ dB

Reflection ____________________________ dB

% Reflectivity Value: ________________________________

Peak ________________________________

Minimum ________________________________

Average ________________________________

Crosstalk requirements on reflection

__________________________ dB @ ____________________________ nm

Maximum insertion loss per grating

__________________________ dB

Maximum loss per array

__________________________ dB

Measurement Wavelength ____________________________ nm

Dimensional Parameters

Length of grating _________ mm with  

__________________________ ± tolerance of _________ mm

Maximum Recoat Outer Diameter _________ µm ____________  

with _______ ± tolerance of _________ µm

Maximum Recoat Length _________ mm with  

__________________________ ± tolerance of _________ mm

Positional Dimensions of Gratings and Tolerance:

Testing Parameters and Packaging Requirements

Proof Test Level for Individual Gratings

__________________________ & Final Array _________ kpsi

Test Data to be Provided:

Marking Requirements:

When you have made your specifications and completed your contact information below, please Fax this worksheet to:

1-860-674-8818

Name: ________________________________

Title: ________________________________

Company: ________________________________

Address: ________________________________

Phone: ________________________________

Email: ________________________________