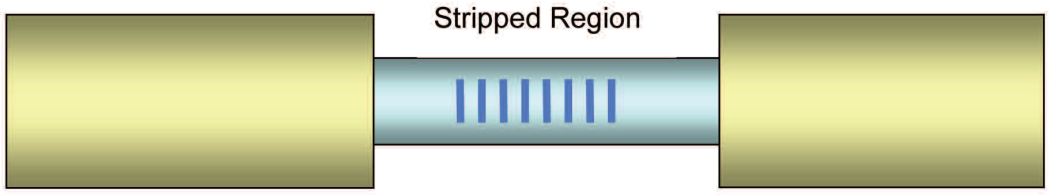
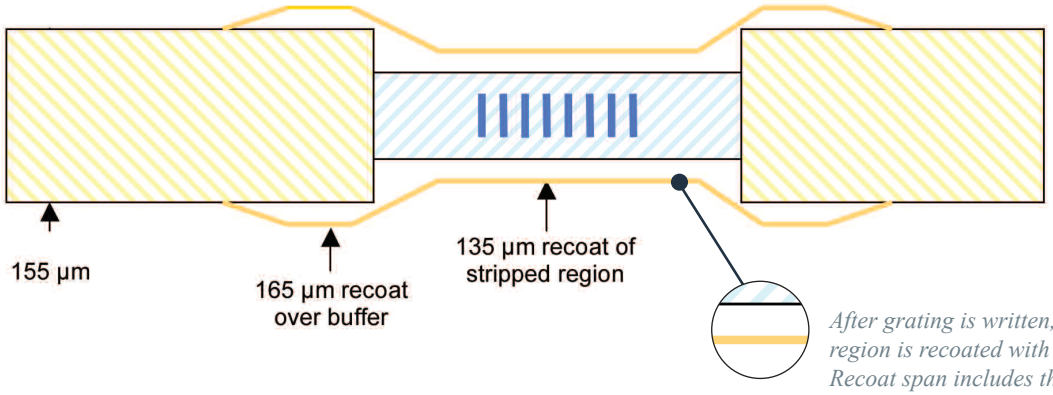
Bragg Gratings
in Polyimide Coated Fiber

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.



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



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 Products

Fiber Bragg Gratings Worksheet

ofs
A Furukawa Company

An online version of this worksheet is available at **www.ofsoptics.com**

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: _____