

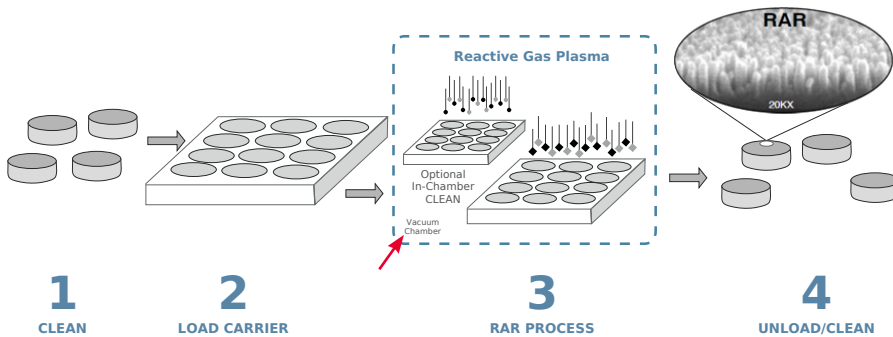
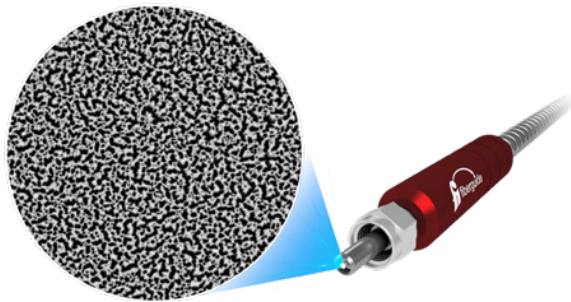
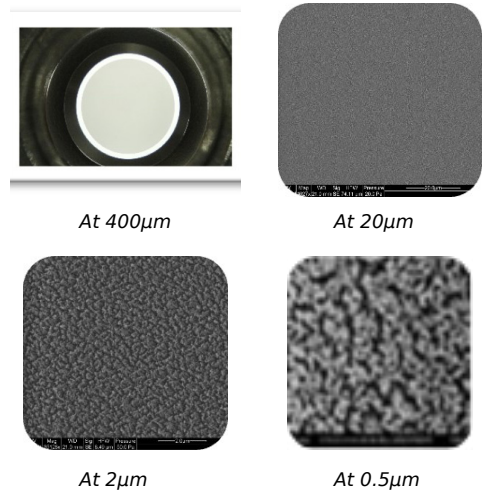
# Fiberguide Motheye Anti-Reflective Technology >

Fiberguide Motheye Anti-Reflective Technology involves a random nano-structured surface that is etched into the ends of fibers to reduce reflectance and increase transmission

## FEATURES AND ADVANTAGES

Uses an anti-reflective (AR) structure Modeled after a moth's eyes, which have low reflectivity to keep the moth hidden from predators  
Reduces reflectance and increases transmission

Licensed proprietary method for optical fibers and end-cap assemblies  
Ensures effective anti-reflective properties

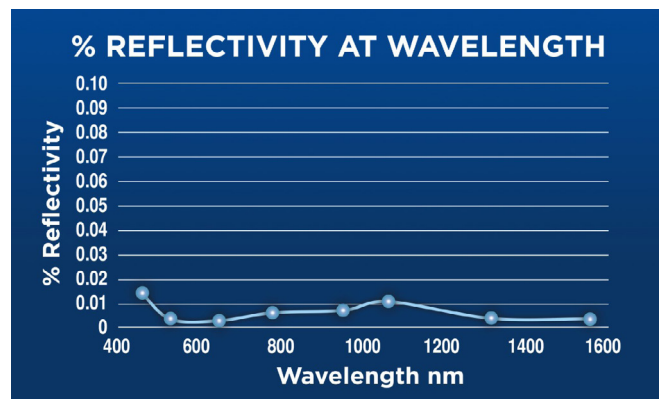
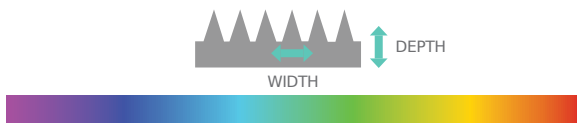


### Transmission performance data

The graph below shows the performance of AFS400 round core fiber with no AR coating versus AFS400 round core fiber with RARe Motheye

### Nano-structure depth and width determines AR wavelength limits

- Depth results in longer wavelength limit
- Width results in short wavelength limit



# Fiberguide Motheye Anti-Reflective Technology >

## MARKETS AND APPLICATIONS

### Scientific/MedTech

Flow Cytometry  
DNA Gene Sequencing  
Microscopy  
Spectroscopy  
Medical Lasers

### Industrial

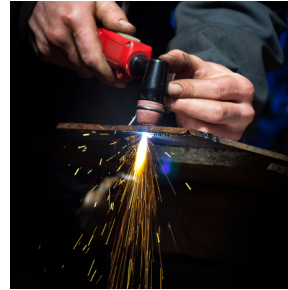
Diode Laser Coupling  
Laser Cutting  
Laser Cladding  
Laser Welding  
Laser Marking  
Laser Engraving  
Digital Projection  
Aerospace

### Telecommunications/Networking

Diode Laser Coupling



*DNA Gene Sequencing*



*Industrial Laser Cutting*

**Certifications:**  
FDA Registered  
ISO 9001:2015  
ISO 13485:2016

## SPECIFICATIONS

### Anti-Reflection Type:

Randomized nano surface

### Wavelength Range:

400-1550nm

### Fiber Sizes:

3µm up to 2.00mm core

### Broadband Reflectivity:

<0.5% from 460 to 1550nm over 1090nm

### Angle of Incidence:

0 to 60°

### Laser Damage Threshold:

59 J/cm<sup>2</sup>, Tested at 1064nm, 16.4ns, 20Hz,  
Spot Diameter 0.405mm

### Cleaning Protocols:

Do not directly touch surface. Clean with N<sub>2</sub>  
(dry nitrogen) or CO<sub>2</sub> Snow gun. Contact  
sales rep for additional information

### Fiber Types:

All Silica  
Optical Fiber  
Hard Clad Fiber

### Buffer Types:

Acrylate  
Aluminum  
Gold  
Nylon  
Polyimide  
Tefzel

### Assembly Types:

Single Fiber Assemblies  
Custom Bundle Assemblies  
1D Arrays Connector

### Connector Types:

905 SMA  
906 SMA  
FC/PC  
FC/UPC  
FC/APC  
ST/PC  
ST/UPC  
ST/APC  
Cleaved Ends  
Polished Ends  
Round 2.5mm Ferrule  
FD-80 High Power Connector  
905 High Power Connector  
1D Arrays  
Custom Connector

[www.molex.com/link/motheye.html](http://www.molex.com/link/motheye.html)