



## 100 µm Low OH PYROCOAT® Step-Index Optical Fiber

P/N: CF04406-11

### Product Overview

Low OH concentration optimizes these fibers for use in the near-IR wavelengths. Biocompatibility features make these fibers ideal for laser surgery and other medical applications. The all-silica base construction also creates a high damage threshold and high-performance optical properties. High temperature environments require the use of PYROCOAT® polyimide coating.

### Typical Applications

- Illumination
- Laser Surgery
- Laser Welding and Cutting
- Radiation Analysis
- Sensors
- Visible to Near-IR Spectroscopy

| Product Specifications              |                                                                                                                                                                                                                                                                                                          |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Description</b>          | <b>100 Low OH PYROCOAT Step-Index</b>                                                                                                                                                                                                                                                                    |
| <b>Physical Characteristics</b>     |                                                                                                                                                                                                                                                                                                          |
| Core Diameter                       | 100 ± 3 µm                                                                                                                                                                                                                                                                                               |
| Cladding Diameter                   | 110 ± 3 µm                                                                                                                                                                                                                                                                                               |
| Coating Diameter                    | 140 ± 5 µm                                                                                                                                                                                                                                                                                               |
| Coating Concentricity               | ≥ 80%                                                                                                                                                                                                                                                                                                    |
| Crimp & Cleave Compatible           | No                                                                                                                                                                                                                                                                                                       |
| <b>Optical Characteristics</b>      |                                                                                                                                                                                                                                                                                                          |
| Type                                | Multimode Step-Index                                                                                                                                                                                                                                                                                     |
| Numerical Aperture                  | 0.22                                                                                                                                                                                                                                                                                                     |
| Attenuation @ 850 nm                | ≤ 12 dB/km                                                                                                                                                                                                                                                                                               |
| Water Content                       | Low OH                                                                                                                                                                                                                                                                                                   |
| <b>Mechanical and Environmental</b> |                                                                                                                                                                                                                                                                                                          |
| Operating Temperature               | -65 to +300 °C                                                                                                                                                                                                                                                                                           |
| Short-Term Temperature Excursions   | Up to 400 °C                                                                                                                                                                                                                                                                                             |
| Short-Term Bend Radius              | ≥ 9 mm                                                                                                                                                                                                                                                                                                   |
| Long-Term Bend Radius               | ≥ 14 mm                                                                                                                                                                                                                                                                                                  |
| Proof Test Level                    | ≥ 100 kpsi (0.689 GPa)                                                                                                                                                                                                                                                                                   |
| <b>Order by Part Number</b>         | <b>CF04406-11</b>                                                                                                                                                                                                                                                                                        |
| <b>Product Description Code</b>     | <b>TCL-MA100H</b>                                                                                                                                                                                                                                                                                        |
| OPTIONS                             | Clad Diameter, Connectorization, Core Diameter, Metalization, Numerical Aperture, Proof Test                                                                                                                                                                                                             |
| NOTE                                | Lightera polyimide optical fibers are known to operate in environments up to 300 °C. Performance is application dependent. Contact our Technical Sales department to discuss your specific application requirements. 1-860-678-6636                                                                      |
| Contact Information                 | For additional information please contact your sales representative. You can also visit our website at <a href="http://www.lightera.com">www.lightera.com</a> or call 1-888-FIBERHELP (1-888-342-3743) USA or 1-770-798-5555 outside the USA. For a full list of our certifications, visit our website.  |
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