Optran® NCC UV/WF

(Silica/Silica Non Circular Core Fiber)

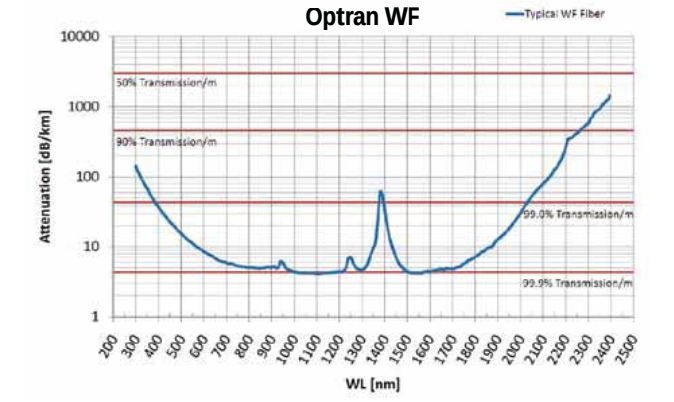
CeramOptec's non circular core silica optical fibers show the same exceptional performance and transmission as Optran UV/WF fibers with circular core geometry. With its good image scrambling and low focal ratio degradation it is ideal for astronomy applications. When used with diode lasers which give a square shaped output, the square core fibers offer greater coupling efficiencies than circular fibers. In laser applications such as surface pre-treatment, material can be processed in a more uniform fashion than is possible with a circular beam due to less overlapping. The square output beam reduces the need for beam shaping optics.

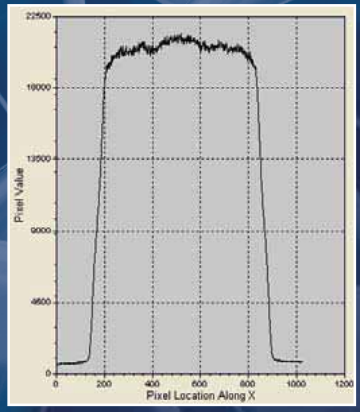
Features

- Broad UV / VIS / NIR spectral range
  - Optran UV: 190 – 1200 nm
  - Optran WF: 300 – 2400 nm
- High laser damage resistance
- Broad temperature range (-190° to +350°C)
- Different core geometries available
  e.g. square, rectangular, octagonal, etc.
- Homogeneous power distribution
- Excellent image scrambling characteristics
- Superior focal ratio degradation characteristics
- Biocompatible materials
- Sterilizable by ETO and other methods
- Manufactured at GMP and ISO 9001 compliant facility

Physical Properties

- Step index profile
- Pure synthetic fused silica core
  - Optran WF: low OH- content < 1 ppm
- Available NA:
  - Low NA: 0.12 ± 0.02
  - Standard NA: 0.22 ± 0.02
  - High NA: 0.28 ± 0.02
- Standard prooftest:
  - 100 kpsi (Nylon, ETFE, Acrylate jackets)
  - 70 kpsi (Polyimide jacket)
- Minimum bend radius:
  - 50 x clad diameter (momentary)
  - 150 x clad diameter (long term)





Note

Fibers with a thin cladding may not support transmission for long wavelengths. CeramOptec strives to ensure the accuracy of all information provided; however, we imply no warranties and disclaim any liability in connection with the use of this information.

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(Silica/Silica Non Circular Core Fiber)

Non Circular Core fibers available

- Square Geometry (Optran WF, Nylon jacket, NA=0.22)

  70 µm x 70 µm, OD of fused silica: 115 µm
  140 µm x 140 µm, OD of fused silica: 231 µm
  150 µm x 150 µm, OD of fused silica: 330 µm
  200 µm x 200 µm, OD of fused silica: 420 µm
  215 µm x 215 µm, OD of fused silica: 440 µm
  400 µm x 400 µm, OD of fused silica: 660 µm

- Rectangular Geometry (Optran WF, Nylon jacket, NA=0.22)

  150 µm x 300 µm, OD of fused silica: 660 µm

- Octagonal Geometry - width across flats (Optran WF, Nylon jacket, NA=0.22)

  50 µm, OD of fused silica: 330 µm
  70 µm, OD of fused silica: 462 µm
  100 µm, OD of fused silica: 660 µm

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