

# Optran® NCF UV, Optran® NCF WF

## Silica / silica non-circular fiber

### Pure fused silica / F-doped fused silica square and rectangular shaped fibers

Fibers which deviate from the traditional round form with a square or rectangular shape offers advantages due to providing maximum packing density for input and output. These fibers are very suitable for connections to angular sources and receivers, e.g. diode lasers. The angular shaped core provides consistent short-distance homogenization input power distribution. Our angular fibers are also available in rectangular shapes with large side ratios and a small corner radius, thanks to our special PCVD-technology.



Large NCF's are ideal for applications which require a combination of flexibility and large cross sections in silica fibers, e.g. a diode laser delivery system. To name an example, the geometry of a rectangular optical fiber with a ratio of 1:3 allows for rotation and movement on one axis. The cross section is but about four times larger than that of a round fiber (round fiber / diameter – rectangular fiber / page size).



### Advantages

- Maximum packing density for input or output of bundle
- Suitable for diode laser coupling
- Homogeneous power distribution
- Wide range of available core and cladding sizes
- The same cross section ratio of the core provides higher flexibility compared to round fibers
- High resistance against laser damage
- No need for laser beam focusing optics
- Very low NA-expansion
- Excellent image scrambling characteristics
- Step-index profile

### Applications

Excellent choice for applications that include diode laser coupling and many more.

### Headquarter

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