

# Negative curvature hollow-core delivery optical fiber (NC-HCF)

## Description:

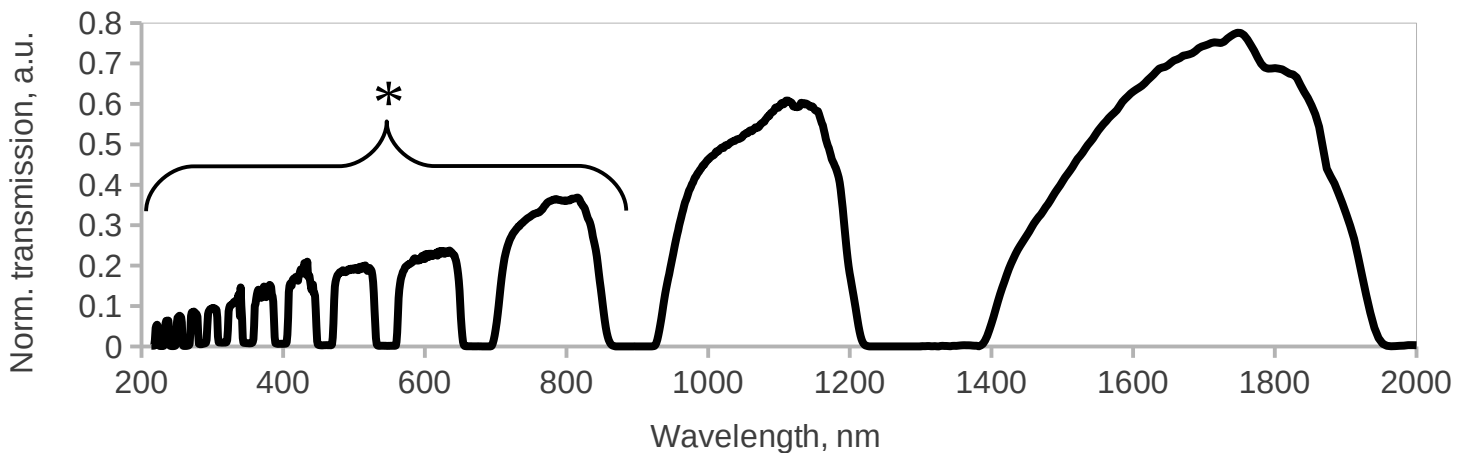
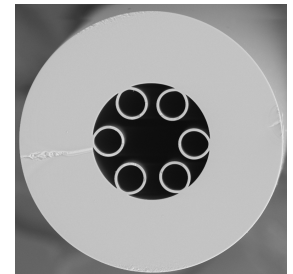
UFE negative curvature hollow-core optical fiber is designed specifically for delivering high-energy femtosecond and picosecond pulses. The fiber features delivery of high energy ultrashort optical pulses with minimum nonlinearity and dispersion. Mode field diameter is in a good correlation with a big number of active LMA fibers.

## Features:

- Transmission bands at 1 and 1.55  $\mu\text{m}$
- Low coupling losses with SMF-28 with mode field adapter:
  - ~0.5 dB at 1064 nm
  - ~0.2 dB at 1550 nm
- Mode field diameter similar to LMA fibers
- Patch cables available (FC/PC)

## Geometric specifications:

- Hollow core
- Core diameter: 26  $\mu\text{m}$
- Number of capillaries: 6
- Capillary wall thickness: 1.3  $\mu\text{m}$
- Cladding diameter:  $127 \pm 2 \mu\text{m}$
- Coating diameter:  $260 \pm 10 \mu\text{m}$



\*Decreasing of the NC-HCF fiber transmission at short wavelengths associated with excitation of higher number of modes during light coupling.

## Optical specifications NC-HCF-26/127:

Transmission range, nm	950-1170	1500-1900
Attenuation, dB/m	0.06	0.45
Transmission of 3m patch cable, %	$\leq 80$	$\leq 72$
Numerical aperture	0.056	0.06
Mode field diameter, $\mu\text{m}$	12	17

## Applications:

- High-energy pulses delivering systems
- Fiber master oscillators
- Fiber amplifiers
- Ultrashort pulse fiber lasers
- Testing equipment