

# EyeSafe Thulium-Doped SM Single Clad Fiber (Preform)

## Description:

ÚFE single-mode (SM) thulium-doped optical fiber is designed specifically for applications using pumping in the fiber core. The fiber features high conversion efficiency of pumping radiation, low concentration of hydroxyl ions and low background losses. This single-mode fiber is compatible with standard “telecom” fiber technology and components.

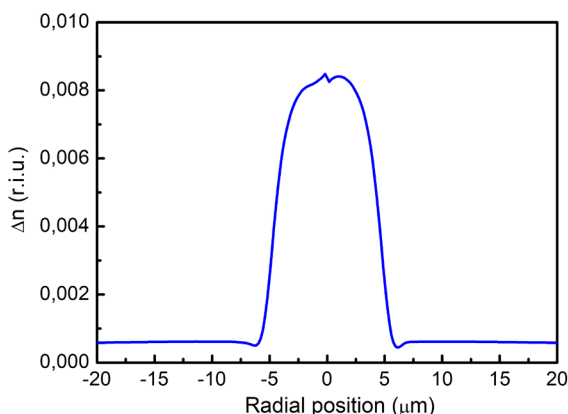
## Features:

- High laser slope efficiency (65 %) – efficient utilization of the pump power at 1565 nm
- Suitable for LPFG/FBG inscription
- Single-mode output – good splice-ability to standard single-mode telecom fiber-based components

## Optical specifications SM-TDF-8/125:

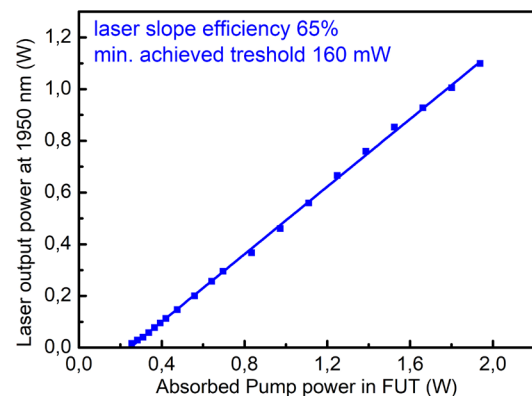
- Single-mode operation: beyond 1500 nm
- Operating signal wavelength: 1950-2100 nm
- Numerical aperture of the core: 0.16
- Background losses ~ 0.077 dB/m
- Losses due to OH ~ 0.18 dB/m at 1386 nm
- Core Absorption: 33.43 dB/m at 1640 nm
- Fluorescence lifetime ( $^3F_4 - ^3H_6$ ): 518  $\mu$ s

## Refractive index fiber profile:

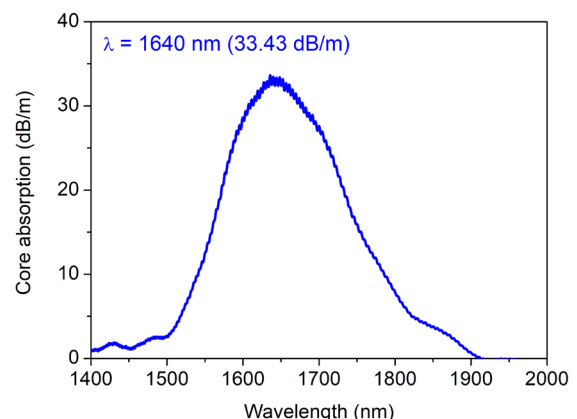


## Applications:

- Femtoseconds fiber lasers
- Broadband light (ASE) sources
- High-power, CW fiber lasers and amplifiers



## Absorption band around 1950nm:



## Geometric and mechanical specifications:

- Core diameter: 8  $\mu$ m
- Cladding diameter: 125  $\pm$  1  $\mu$ m
- Coating diameter: 250  $\pm$  15  $\mu$ m
- UV acrylate coating for better fiber durability in extreme environmental operating & storage conditions