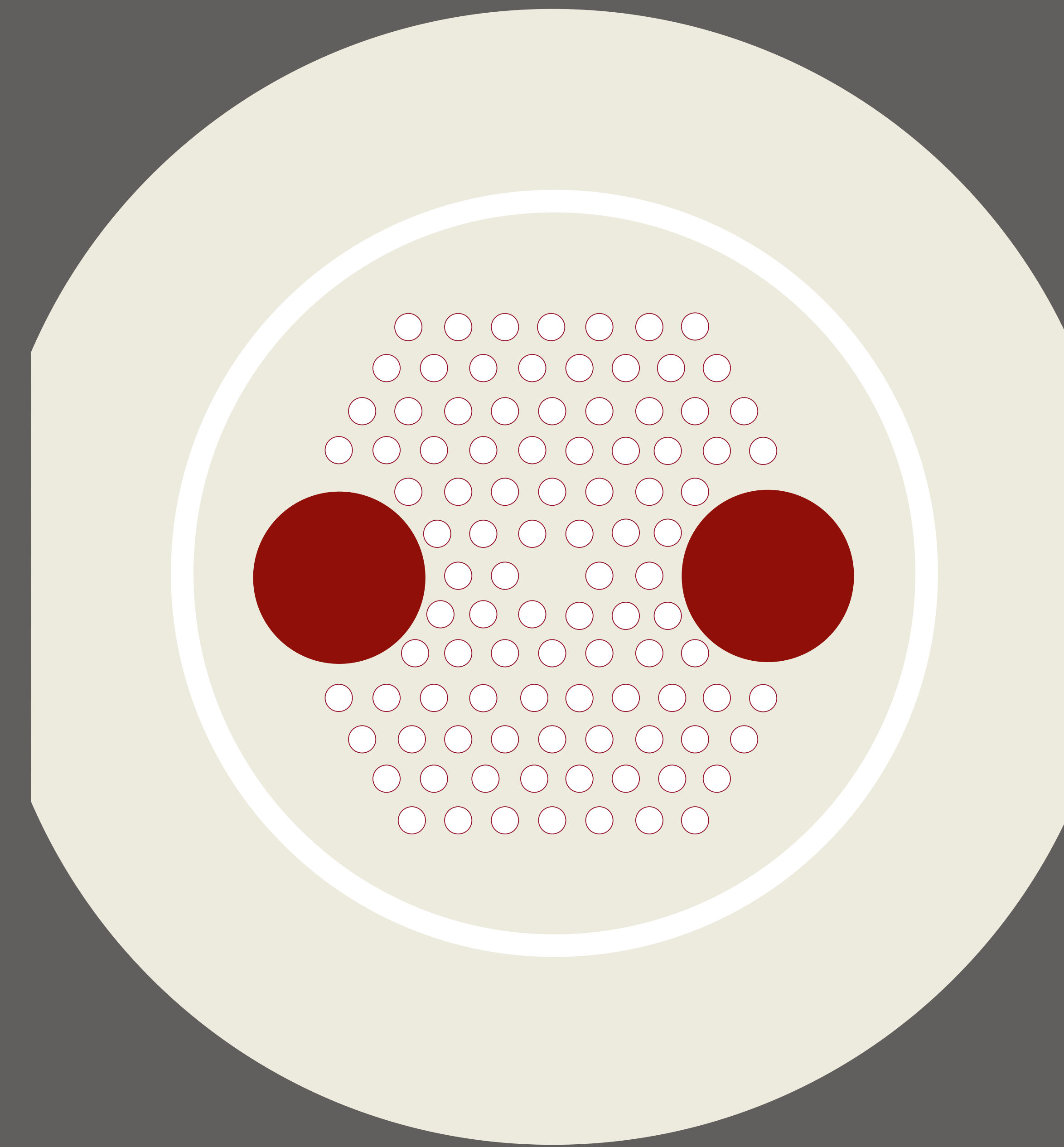


# DC-200/40-PZ-Yb

Single-mode, polarizing double-clad Ytterbium fiber



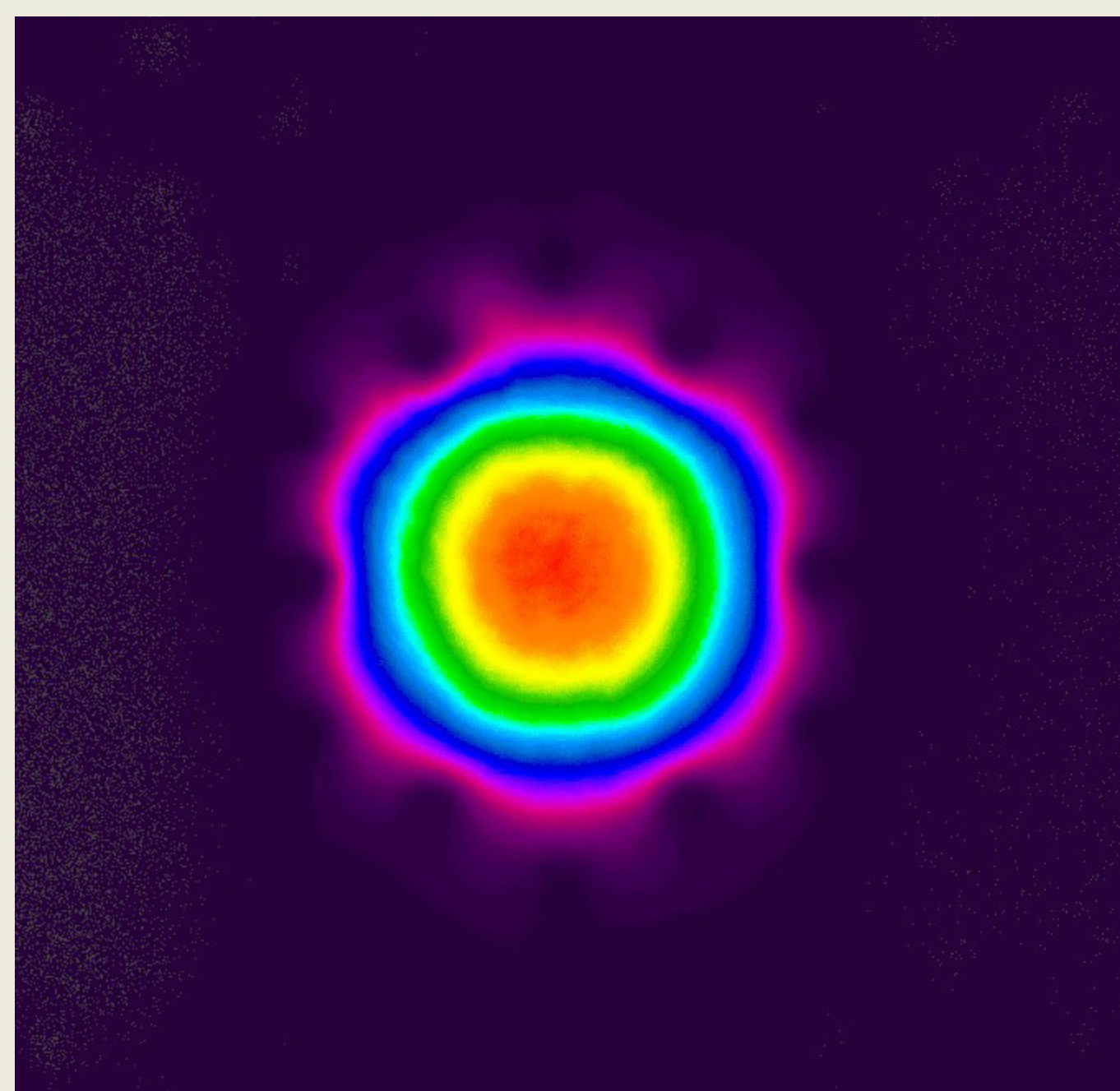
# Large area, single-mode gain fiber

## Ideal for industrial fiber lasers

With a mode area of more than 700  $\mu\text{m}^2$ , this fiber represents the best in flexible single-mode ytterbium fibers. The single-polarization core improves the PER compared to normal PM fibers.

Multi-mode pump light is guided by our proven airclad technology, ensuring low loss, high damage threshold, and a large numerical aperture. The large NA relaxes the tolerances on coupling optics and facilitates the use of lower brightness diodes.

### Typical near field intensity profile



### Perfect for industrial fiber lasers

The combination of robust single-mode guidance, excellent PER, and a large mode area has made the DC-200/40-PZ-Yb the preferred choice for many high-end industrial fiber laser manufacturers.

### Coil Control

Coil Control ensures that the fiber coils in one plane leading to superior mode stability. Depending on the wavelength, we recommend a 25-40 cm coiling diameter and operating the fiber in the slow (in-plane) axis.

### Features

- Single-mode polarizing
- Large mode area
- High NA circular pump core
- High pump absorption, no skew rays
- Coil Control ensuring excellent stability

Also available in a passive version: DC-200/40-PZ-Si

# DC-200/40-PZ-Yb

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## The single-mode advantages

**Our single-mode fibers offer several advantages compared to standard multi-mode large area fibers:**

- Excellent output stability**
- Outstanding beam quality**
- No need for tight coiling**
- No coiling-induced mode area compression**



# Specifications

## DC-200/40-PZ-Yb

### Optical

### Physical

Mode properties	Single-mode		
Beam quality, typical @ 1064 nm	$M^2 < 1.2$	Signal core diameter [ $\mu\text{m}$ ]	$\approx 40$
Mode-field diameter, $1/e^2$ @ 1064 nm [ $\mu\text{m}$ ]	$31 \pm 2$	Pump cladding diameter [ $\mu\text{m}$ ]	$200 \pm 3$
Pump cladding NA @ 950 nm	0.55 - 0.65	Outer cladding diameter [ $\mu\text{m}$ ]	$450 \pm 20$
Pump absorption @ 915 nm [dB/m]	$3.75 \pm 0.75$	Coating diameter [ $\mu\text{m}$ ]	$540 \pm 30$
Pump absorption @ 976 nm, normal [dB/m]	$\approx 12$	Coating material, single-layer	High-temperature acrylate
Birefringence $\Delta n$ @ 1100 nm, typical	$\geq 1 \times 10^{-4}$	Outer and pump cladding material	Pure silica

All NKT Photonics products are produced under our quality management system certified in accordance with the ISO 9001:2015 standard.



# SOLUTIONS FOR INNOVATORS