Ytterbium-Doped Very-Large-Mode Area Polarization Maintaining Fiber

Drawing of fiber cross section:

Description: Optimised for pulsed applications, heracle's advanced Ytterbium-doped Very-Large-Mode Area Polarization Maintaining Fiber offers significant advantages in performance and stability.

Key Features:

Superior Output Stability: Utilizing low-photodarkening Yb glass fiber ensures consistent and reliable output, providing dependable performance across various applications. Shaped cladding ensures repeatable bending performance.

Exceptional Beam Quality: The precise refractive index profile shape and geometry of the core material ensure high-quality beam output, meeting the stringent requirements of precision-demanding applications.

Splicing-Friendly Architecture: The fiber's all-solid design enhances splicing simplicity and repeatability, overcoming the challenges associated with PCF designs.

High Quality Manufacturing: Heracle fibers are produced with meticulous attention to quality, ensuring exceptional performance in every fiber. The Manufacturing line is designed by Kaizen principles and enables perfect scalability.

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Ytterbium-Doped Very-Large-Mode Area Polarization Maintaining Fiber

General Information:	
Product Name	**Yb-35/200/450-VLMA-PM**
Mode Properties	Single Mode
Core Material	Yb-Doped fused silica
Inner Cladding Material	Pure fused silica
Coating Type	High-temp dual layer, low RI
Typical Application	Ultrafast pulsed lasers

Performance Properties		
Parameter	**Unit**	**Specification**
Beam Quality @ 1030 nm	-	$M^2 < 1.2$
Polarization Extinction Ratio @ 1030 nm	dB	> 15
Optical Efficiency	%	> 70

Optical Properties		
Mode Field Diameter, $1/e^2$ @ 1030 nm	µm	32 ± 3
Inner Cladding Absorption @ 915 nm	dB/m	4.5 – 6.5
Inner Cladding Absorption @ 976 nm (calculated)	dB/m	~ 16
Inner Cladding NA	-	0.26 ± 0.02
Outer Cladding NA	-	~ 0.48

Geometrical Properties		
Core Diameter	µm	~ 35
Pump Cladding Diameter	µm	197 – 203
Outer Cladding Diameter	µm	430 – 470
Secondary Coating Diameter	µm	510 – 570

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