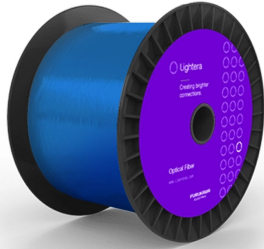


HCXtreme® 272-29 Optical Fiber

P/N: F18939



Product Overview

The Lightera family of High-Power Delivery optical fibers includes the HCXtreme product line. HCXtreme fibers are low-OH, all-silica fibers coated with HCS® fluoroacrylate to improve fiber strength and to improve resistance to fatigue. A blue ETFE is applied as the standard outer buffer on these step-index, multimode fibers, indicating the primary use for medical applications. The HCXtreme 272-29 Optical Fiber offers the highest NA, 0.29, to the HCXtreme family of products, enabling greater energy coupling and better bend performance in a smaller, more flexible fiber. These high NA fibers are also available in other core sizes and core/clad ratios. HCXtreme fibers are made with biocompatible materials.

HCXtreme Optical Fiber coating technology solves the problem of fiber failure due to excessive bending of optical fiber under power. In testing down to 2.5 mm radius bend, HCXtreme fibers continued to transmit power without breakage. Actual performance in any given application should be validated by customer testing.

For further details and testing methodology, request our white paper, entitled “Study of Optical Fiber Damage Under Tight Bend with High Optical Power at 2140 nm.”

Typical Applications

- Cascaded Laser Power Delivery
- High-Power Laser Delivery
- Industrial Cabling
- Laser Surgery
- Laser Welding and Cutting
- Near-IR (up to 2100 nm)
- Laser Power Delivery

Product Specifications	
Product Description	272-29 HCX
Physical Characteristics	
Core Diameter	272 ± 10 µm
Cladding Diameter	326 ± 10 µm
Hard Coating Diameter	356 ± 10 µm
Buffer Diameter	420 ± 30 µm
Clad/Coating Offset	≤ 10 µm
Crimp & Cleave Compatible	Yes
Buffer Material	ETFE
Standard Buffer Color	Blue
Coating Material	HCS® Fluoroacrylate
Optical Characteristics	
Type	Multimode Step-Index
Numerical Aperture	0.29
Attenuation @ 850 nm	≤ 12 dB/km
Water Content	Low OH
Mechanical and Environmental	
Operating Temperature	-65 to +125 °C
Short-Term Bend Radius	≥ 24 mm
Long-Term Bend Radius	≥ 40 mm
Proof Test Level	≥ 100 kpsi (0.689 GPa)
Order by Part Number	F18939
Product Description Code	272-29 HCXtreme
Contact Information	For additional information please contact your sales representative. You can also visit our website at www.lightera.com or call 1-888-FIBERHELP (1-888-342-3743) USA or 1-770-798-5555 outside the USA. For a full list of our certifications, visit our website.
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