



## HCXtreme® 272-22 Optical Fiber

P/N: F24748



### Overview

The OFS 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 reduce static fatigue. ETFE is used as the outer buffer on these step-index, multimode fibers. They have a nominal NA of 0.22 and are available in a variety of core sizes and core/clad ratios.

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



# HCXtreme® 272-22 Optical Fiber

P/N: F24748

Product Specifications	
Product Description	272-22 HCX
Physical Characteristics	
Core Diameter	272 ± 6 µm
Cladding Diameter	299 ± 6 µm
Hard Coating Diameter	330 ± 7 µm
Buffer Diameter	400 ± 30 µm
Clad/Coating Offset	≤ 9 µm
Crimp & Cleave Compatible	No
Buffer Material	ETFE
Standard Buffer Color	Blue
Coating Material	HCS® Fluoroacrylate
Optical Characteristics	
Type	Multimode Step-Index
Numerical Aperture	0.22
Attenuation @ 850 nm	≤ 10 dB/km
Water Content	Low OH
Mechanical and Environmental	
Operating Temperature	-65 to +125 °C
Short-Term Bend Radius	≥ 22 mm
Long-Term Bend Radius	≥ 36 mm
Proof Test Level	≥ 100 kpsi (0.689 GPa)
Order by Part Number	F24748
Product Description Code	272-22 HCXtreme

**OPTIONS:** Cabling, Carbon Coating, Clad Diameter, Connectorization, Core Diameter, Low Bioburden Packaging and Manufacturing, Metalization, Numerical Aperture, Buffer Colors, Proof Test

**For additional information please contact your sales representative.**

You can also visit our website at [www.ofsoptics.com](http://www.ofsoptics.com)  
or call 1-888-fiberhelp (1-888-342-3743) USA or 1-770-798-5555 outside the USA.



Copyright © 2024 OFS Fitel, LLC.  
All rights reserved, printed in USA.

OFS Marketing Communications  
Date: 10/24

HCS and HCXtreme are registered trademarks of OFS Fitel, LLC. OFS reserves the right to make changes to the prices and product(s) described in this document at any time without notice. This document is for informational purposes only and is not intended to modify or supplement any OFS warranties or specifications relating to any of its products or services.

For a full list of our certifications, visit our website.

