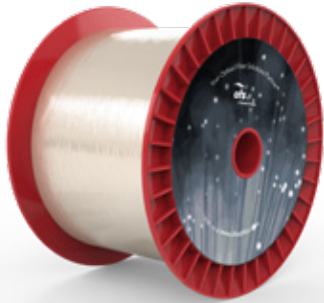




A Furukawa Company

## HCXtreme® 550-22 Optical Fiber

P/N: F18941



### 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



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| Product Specifications       |                        |
|------------------------------|------------------------|
| Product Description          | 550-22 HCX             |
| Physical Characteristics     |                        |
| Core Diameter                | 550 ± 12 µm            |
| Cladding Diameter            | 600 ± 10 µm            |
| Hard Coating Diameter        | 630 ± 10 µm            |
| Buffer Diameter              | 750 ± 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       | ≥ 58 mm                |
| Long-Term Bend Radius        | ≥ 94 mm                |
| Proof Test Level             | ≥ 100 kpsi (0.689 GPa) |
| Order by Part Number         | F18941                 |
| Product Description Code     | 550-22 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.



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