

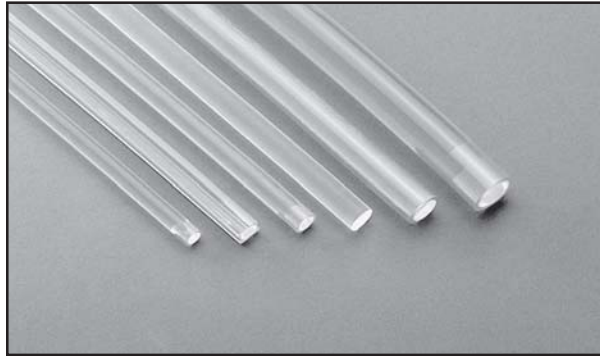
STA-FLEX® FLEXCOAT™ “SFC” LINEAR OPTICAL FIBER

Project:

Type:

Catalog Number: **SFC**

System Component: **Optical Fiber**



- ◆ STA-FLEX® Large Core
- ◆ Indoor/Outdoor Applications
- ◆ UV Inhibitors
- ◆ Algicides and Fungicides Resistant
- ◆ Clear, Flexible, Bondable Jacket
- ◆ Wide 80° Acceptance Angle
- ◆ UL94VO Fire Rated
- ◆ Clear, Luminous Appearance
- ◆ Long Life Flexibility

DESCRIPTION: LUMENYTE® STA-FLEX® FLEXCOAT “SFC” linear optical fiber consists of a light transmitting solid large core, Teflon® cladding and a durable, flexible, fire-retardant clear outer jacket. This unique construction enables the optical fiber to expand its reflection area through the jacket creating a neon-like appearance. It is ideal for *exterior and interior* applications such as building perimeters, walkways, accent lighting and water features. STA-FLEX® FLEXCOAT installs easily and contains UV inhibitors, algicides and fungicides. The bondable jacket allows for easy splicing. For submersed applications an additional "-WR" jacketing is required.



SFC201/201W



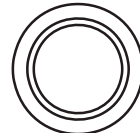
SFC301/301W



SFC302



SFC401



SFC501

NOTE: Images are not to scale - Refer to next page for dimensions

SPECIFICATIONS:

Transmission Loss (attenuation)
Bend Radius

Temperature Stability
Spectral Transmission Range
Acceptance Angle
Refractive Index

Numerical Aperture

Less than 1.5% per foot (SFC501)
Physical Minimum: 6 x fiber diameter
Recommended: 12 x fiber diameter or larger
Up to 90° C (194° F)
350-800 nm
80°
Core: 1.48 or greater
Cladding: 1.34 or less
0.63

Teflon® is a registered trademark of DuPont.

LUMENYTE INTERNATIONAL CORPORATION

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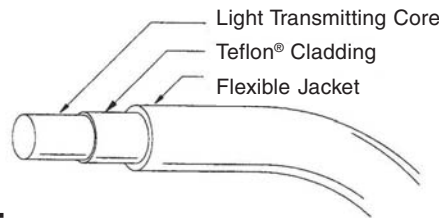
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DCN 650015

STA-FLEX® FLEXCOAT™ “SFC” LINEAR OPTICAL FIBER

Recommended/Maximum # of fibers that fit into illuminators:

Dimensions: (ALL DIMENSIONS ARE NOMINAL)

| Model Number | Core Diameter | | Outer Diameter | | -WR Outer Diameter | | Econo | PH Non-Harn | PH Harn | LimoLyte |
|--------------|---------------|--------|----------------|--------|--------------------|--------|-------|-------------|---------|----------|
| | in. | mm | in. | mm | in. | mm | | | | |
| SFC201/201W | .190" | 4.8mm | .300" | 7.6mm | .360" | 9.3mm | 8/12 | 12/17 | 12/19 | 8/12 |
| SFC301/301W | .240" | 6.1mm | .365" | 9.3mm | .425" | 10.8mm | 3/4 | 7/11 | 7/12 | 5/7 |
| SFC302 | .240" | 6.1mm | .365" | 9.3mm | N/A | | 4/4 | 7/11 | 7/12 | 5/7 |
| SFC401 | .360" | 9.1mm | .515" | 13.1mm | .575" | 14.6mm | 1/1 | 3/4 | 3/5 | 1/3 |
| SFC501 | .490" | 12.4mm | .707" | 17.8mm | .767" | 19.5mm | 1/1 | 2/2 | 2/3 | 1/1 |



*Rec.= Recommended Maximum

**Max.= Physical Maximum

Ordering Information

| | | | |
|--|--|-----------------------------|-------------------------|
| <p>EXAMPLE:</p> <p style="text-align: center;">SFC201 - 75'</p> <p>MODEL # LENGTH (in feet)</p> | MODEL # | UNDERWATER | LENGTH (in feet) |
| | SFC201 SFC201W SFC301 SFC301W SFC302 SFC401 SFC501 | -WR (for underwater use) | |

Maximum Manufactured Length

- 100 feet (30.5m) continuous

Maximum Distance for Effective Brightness

The effective light output of optical fiber is based upon several variables such as:

- Intensity of light source
- Fiber length and attenuation
- Color of light
- Quantity of fibers in illuminator
- Background color contrast
- Number and radius of bends
- Diameter of fiber
- Viewing angle
- Ambient light level

Splicing and Cutting

- Splicing can be done in the field using Lumenyte Splice Kits and carefully following the instructions. Factory splicing is available. Lumenyte's Optic Cutter is advised for straight, clean 90° fiber cuts.

Environment

- Avoid allowing liquids between the core and cladding. Use end seals bonded with SC2081 glue..
- Avoid dirt and abrasions on the core fiber and jacket.
- Install fibers in 10° C (50° F) or higher temperature.

Installation into a Non-Harness Illuminator

- Remove 4 inches (10cm) of the outer jacket (not the fluoropolymer cladding) before inserting fiber into the non-harness illuminator.
- Fiber end should be near, **but not touching** the illuminator glass to achieve maximum brightness.

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