

Specification Sheet 08.2016

Corning® Fibrance® Light-Diffusing Fiber

Fibrance Light-Diffusing Fiber is a glass optical fiber made for thin, colorful, aesthetic lighting. This technology enables decorative lighting to be designed or embedded into tight or small places where other bulky lighting elements cannot fit. With this fiber, designers can add light where and how they want, while enhancing the product's overall appeal, functionality, and user experience.

Benefits of Fibrance

- Emits continuous uniform light
- Bright, clear color
- Light, thin and flexible
- Tight-bend capability
- Proprietary glass optical fiber core
- Very low thermal output
- Versatile for many applications





Products available in standard lengths of 100 m, 500 m, and 1,000 m, with standard diffusion lengths of 1 m, 5 m, and 10m. All fiber comes standard with 900 micron clear outer jacket. Fiber designs have been optimized for use with laser diode sources.

Corning Fibrance Light-Diffusing Fiber Product Attributes

Optical

Light-Diffusion Length (Nominal) 1 m 5 m 10 m

Light-Diffusion Output 90% at nominal diffusion lengths

Numerical Aperture > 0.5

Operating Wavelength Range 405 - 1000 nm evaluated, broader possible

Viewing Angle 1 > 120 degrees

Optical Connector None

Mechanical

Core Diameter 170 \pm 3 μm

Outer Diameter 230 \pm 10 μm

Physical Length (Nominal) 100 m 500 m 1,000 m

Jacket Diameter (Nominal) 900 µm

Jacket Material Optical Grade PVC

Proof Test - Tensile Strength > 100 kpsi

Environmental

Operating Temperature Range -40 to +65°C Storage Temperature Range -40 to +65°C

Notes

¹ Viewing angle is defined as the angle at which the luminance is greater than 50% of the maximum. The fiber emits light uniformly in 360° around the circumference of the fiber and >120° along the length of the fiber if viewed from either end.



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