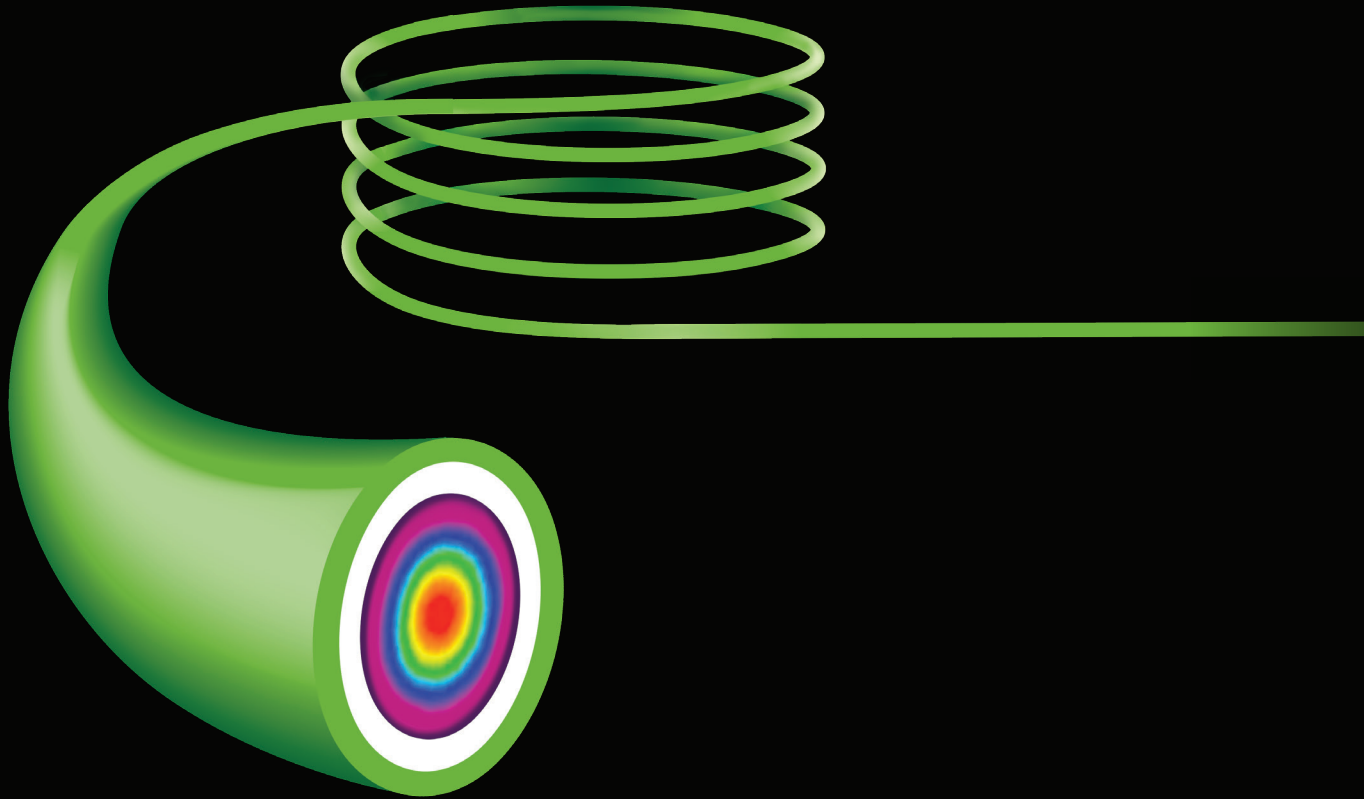


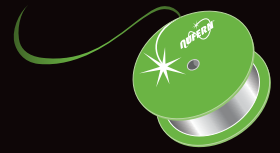
# **NUBEAM**<sup>TM</sup>



## Delivering Light Energy

NuBEAM multimode, step index beam delivery fibers are designed for solid state, fiber and diode laser systems. Benefiting from an environmentally controlled clean room facility and many years of experience, the engineers at Nufern have developed a new generation of beam delivery fibers designed to address the laser industry's ever increasing need for greater power handling capability. NuBEAM fibers are available in a large assortment of core and clad diameters accommodating the widest range of applications. NuBEAM power delivery fibers are typically offered with acrylate or silicone and transparent nylon buffers. They are also available with proprietary NuCOAT<sub>FA</sub> coating for added power confinement or polyimide for high temperature applications.





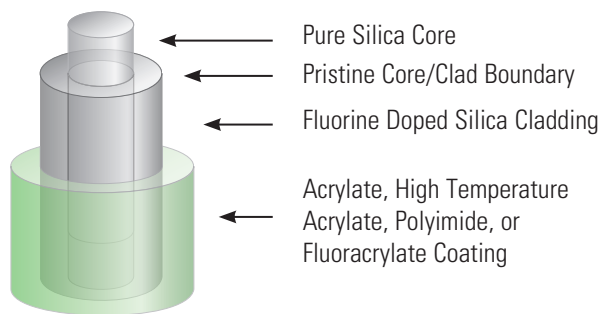
### Optical Features & Benefits

- Industry leading geometric tolerances — Ease of assembly and superb repeatability
- Pure silica core — High damage resistance and very low attenuation
- Low-OH Core option — Optimized for transmission from 700 - 2200 nm
- High-OH Core option — Enhanced for 180 - 700 nm. Excellent for high radiation resistance at 800 nm

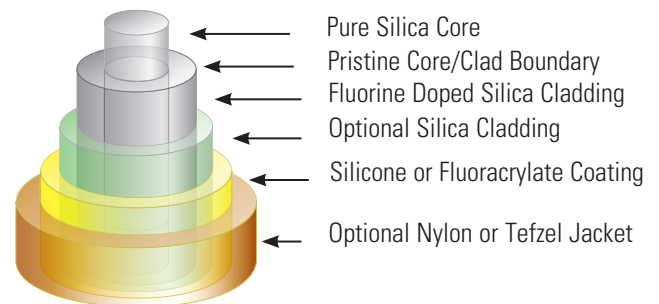
### Mechanical Features & Benefits

- Robust design — Compatible with majority of fiber interconnect systems
- Clean room processing — Provides high-strength, long-life fibers and eliminates hot spots
- Core diameters ranging from 50  $\mu\text{m}$  to 1000  $\mu\text{m}$  — Covers the lowest to highest power applications
- Industry highest proof test levels — For guaranteed glass strength

### Typical Pump Delivery Fiber Construction



### Typical Power Delivery Fiber Construction



### Standard NuBEAM Pump Delivery Fibers

Core Type*	Core NA**	Clad/Core Ratio**	Core Diameter	Clad Diameter	Coating	Jacket** (optional)
Low -OH	0.12	1.1	50 - 1350 $\mu\text{m}$	70 - 1500 $\mu\text{m}$	Acrylate High Temperature Acrylate Fluoracrylate Silicone	Nylon Tefzel
High - OH	0.15 0.22					
			50 - 440 $\mu\text{m}$	70 - 480 $\mu\text{m}$	Polyimide	

### Standard NuBEAM Power Delivery Fibers

Core Type	Core NA**	Clad/Core Ratio**	Core Diameter	Second Clad Diameter	Coating**	Jacket** (optional)
Low -OH	0.22	1.1	50 - 1350 $\mu\text{m}$	125 - 1500 $\mu\text{m}$	Fluoracrylate Silicone	Nylon Tefzel
		1.2				
High - OH		1.4	50 - 400 $\mu\text{m}$	up to 480 $\mu\text{m}$	Polyimide	

\* Ultra Low - OH available upon request

\*\* Other options available upon request