

High Power Silica Fiber Cables



art photonics



FlexiRay®

Special laser fiber structures

Cool high power connectors
HP-SMA and D80

Flexible and robust for high
power & bright laser beams

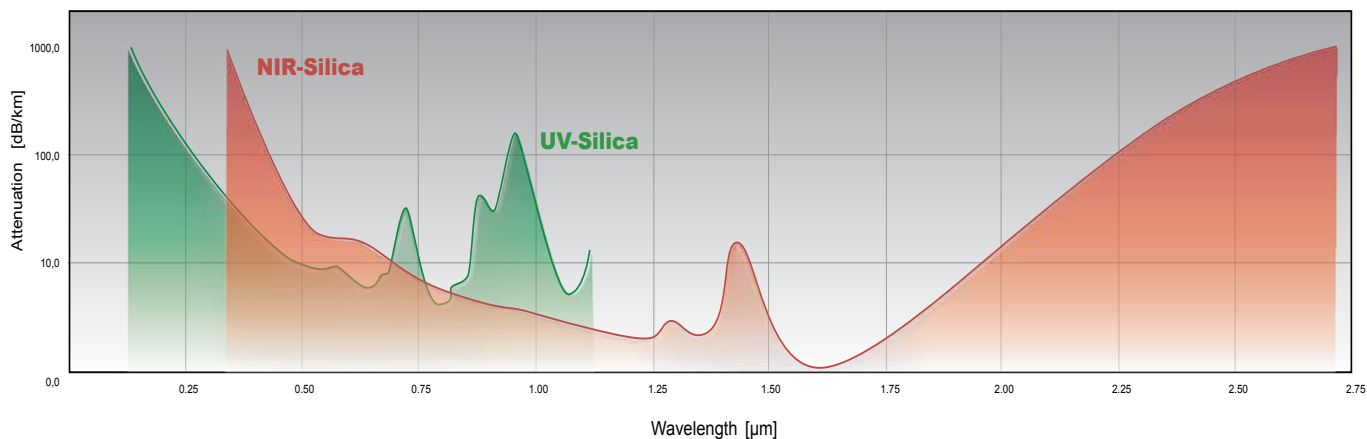
FlexiRay® cables from **art photonics** is the latest generation of High Power Fiber Cables produced for various lasers in broad spectral range. **FlexiRay®** HP-cables deliver much higher power compared to the similar cables in result of specialty laser fiber combination with the proprietary connector design. This synergy enables long HP-cable life while high power density is delivered and connectors stay cool.

Applications:

- Laser Welding of Metals & Plastics
- Laser Cutting & Drilling
- Rapid Surface Processing
- Medical Laser Power Delivery
- Laser Target & Rangefinder
- Laser Spectroscopy

broad spectra fiber solutions

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High Power Cable	Specification	Core shape
Fiber core shape Fiber core diameter Fiber core material	Round (other shape – on request) 100, 200, 300, 400, 600, 800 μm * Pure fused silica: High OH- (λ= 0.18 – 1.2 μm) Low OH- (λ= 0.35 – 2.5 μm)	
Fiber cladding Protective jacket material	Fluorine doped fused silica Nylon, Tefzel, Acrylate, Polyimide, Metal	
Standard NA: NA on request:	0.22 ± 0.02 (Full Acceptance Angle 25°) 0.12 ± 0.02 (Full Acceptance Angle 14°) 0.26 ± 0.02 (Full Acceptance Angle 30°)	
Cable protective tube Cable length High power connectors	Polymer coated Stainless Steel Tubing From 5 cm to 50 m* HP-SMA, D80	

*customized dimensions available on request

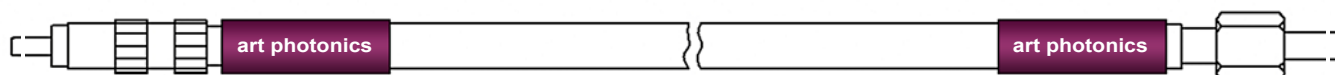
Laser Power Matrix to select fiber core / connector of *FlexiRay*® HP-cable*

Fiber core diameter	100 μm	200 μm	400 μm	600 μm
HP-SMA connector	100 W	200 W	300 W	400 W
D80 connector	150 W	400 W	600 W	800 W

*Max power level is only indicated approximately – as it depends on laser beam profile, coupler parameters and on heat dissipation conditions for input & output connectors

HP-SMA-connector

D80-connector



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