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# High Power Silica Fiber Cables



**art photonics**

**FlexiRay®**

Special laser fiber structures

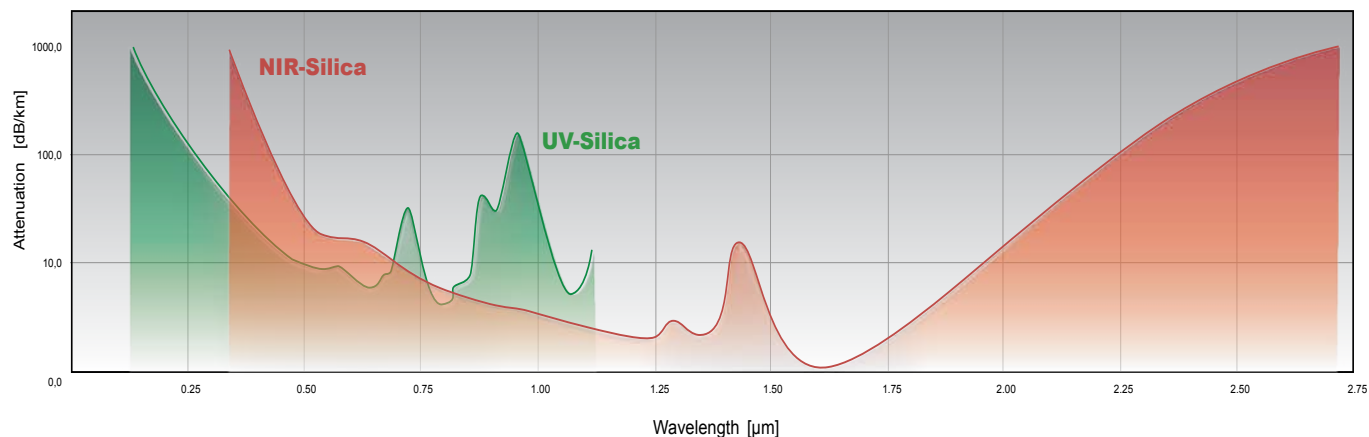
Cool high power connectors  
HP-SMA and D80

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



High Power Cable	Specification	Core shape
<b>Fiber core shape</b> <b>Fiber core diameter</b> <b>Fiber core material</b>	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)	
<b>Fiber cladding</b> <b>Protective jacket material</b>	Fluorine doped fused silica Nylon, Tefzel, Acrylate, Polyimide, Metal	
<b>Standard NA:</b> <b>NA on request:</b>	0.22 ± 0.02 (Full Acceptance Angle 25°) 0.12 ± 0.02 (Full Acceptance Angle 14°) 0.26 ± 0.02 (Full Acceptance Angle 30°)	
<b>Cable protective tube</b> <b>Cable length</b> <b>High power connectors</b>	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 <i>FlexiRay</i> ® 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

