

PURE LIGHT.
PURE INNOVATION.



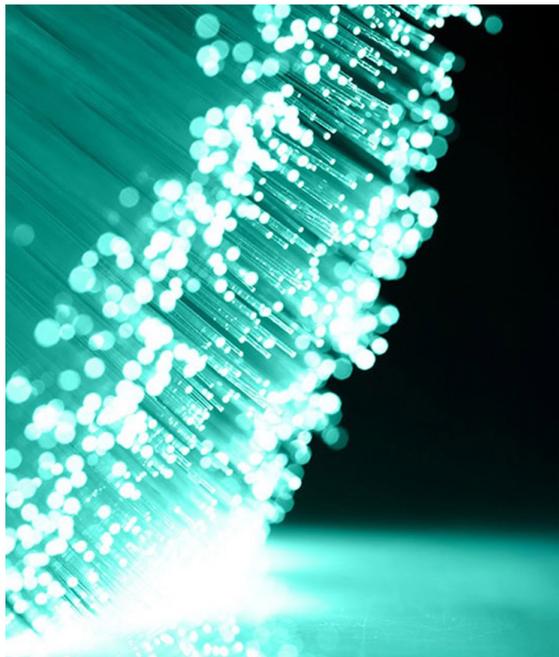


CUSTOMIZED FIBER OPTIC SOLUTIONS

Welcome to your world-leading provider of customized fiber optic solutions. As specialists in multimode fibers and advanced manufacturing technologies, we develop individual solutions based on your specific project requirements.

Our expertise and quality are built on a deep understanding of the fibers available in the market, combined with maximum precision in mechanical components with eccentricity deviations of $<15\mu\text{m}$. This allows us to guarantee reliable and efficient customer solutions in the field of fiber optics.





WE WORK WITH ALL FIBERS.

WE OFFER:

Custom-made Fiber Optics Solutions from 1st piece 10 μ m up to 2400 μ m,
all fibers Ferrules and Connectors.

We meet up with your requirements.

- ✓ Borosilica
- ✓ PMMA
- ✓ Silica-Hard Clad
- ✓ Silica-Silica for UV & NIR wavelength

WE MAKE
THE IMPOSSIBLE
HAPPEN.



FOS INON
FIBER OPTICS



PRODUCTION TECHNIQUES

- Glued bundles and cables, for laboratory use
- Fused / Welded fiber bundle tips, for special environments or temperature issues
- Sorted fiber bundle, for perfect randomization
- Deep UV-wavelength applications from 189nm
- NIR-wavelength application till 2380nm
- Illumination borosilica bundles

$$\varnothing_{\text{core}} = 10 - 2400\mu\text{m}$$

$$\Delta\varnothing_{\text{core}} = \pm 2\%$$

$$\varnothing_{\text{core}} : \varnothing_{\text{clad}} = 1:1.05 - 1.4$$

$$\varnothing_{\text{jacket}} = \pm 5\%$$

$$\text{NA} = 0.06 - 0.27 \text{ (silica/silica F-doped)}$$
$$0.37 \text{ (silica/silica Ge-doped)}$$
$$0.5 \text{ (hardclad)}$$



ALL FIBERS

Core (n1): Fused silica, quartz, SiO₂

- a • pure
- b • Germanium doped
- c • PMMA



Clad (n2): Fused silica, quartz, SiO₂

- a • Fluorine doped
- b • no clad
- c • PMMA doped

Buffer

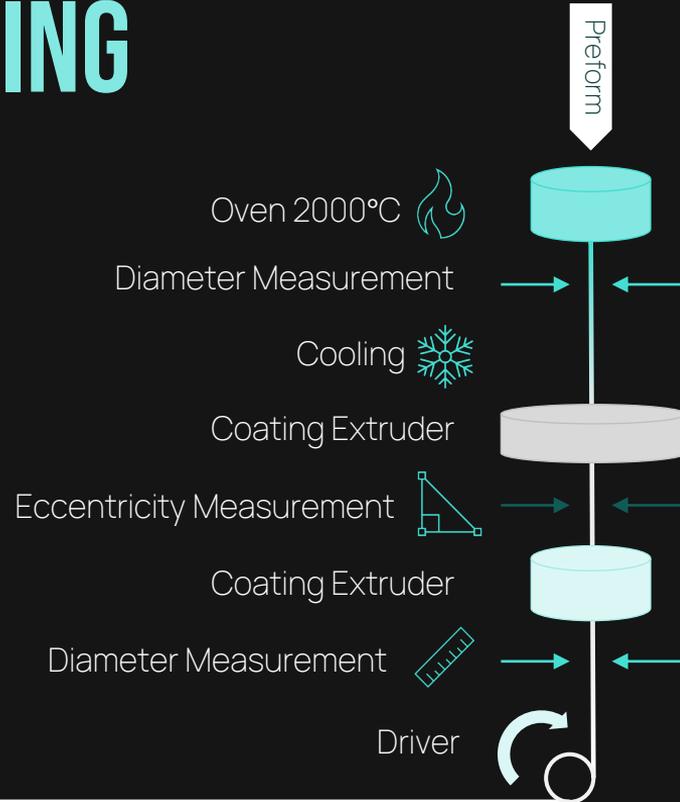
- a • Polymer Clad, "Hardclad" → n2 (n3) Temp. < 70°C
- b • Silicone Temp. < 200°C
- c • no buffer

Jacket

- a • Polyimide Temp. -190°C...390°C, vacuum ok
- b • Nylon Temp. < 100°C
- c • ETFE („Tefzel“) Temp. < 150°C
- d • Acrylate Temp. < 85°C



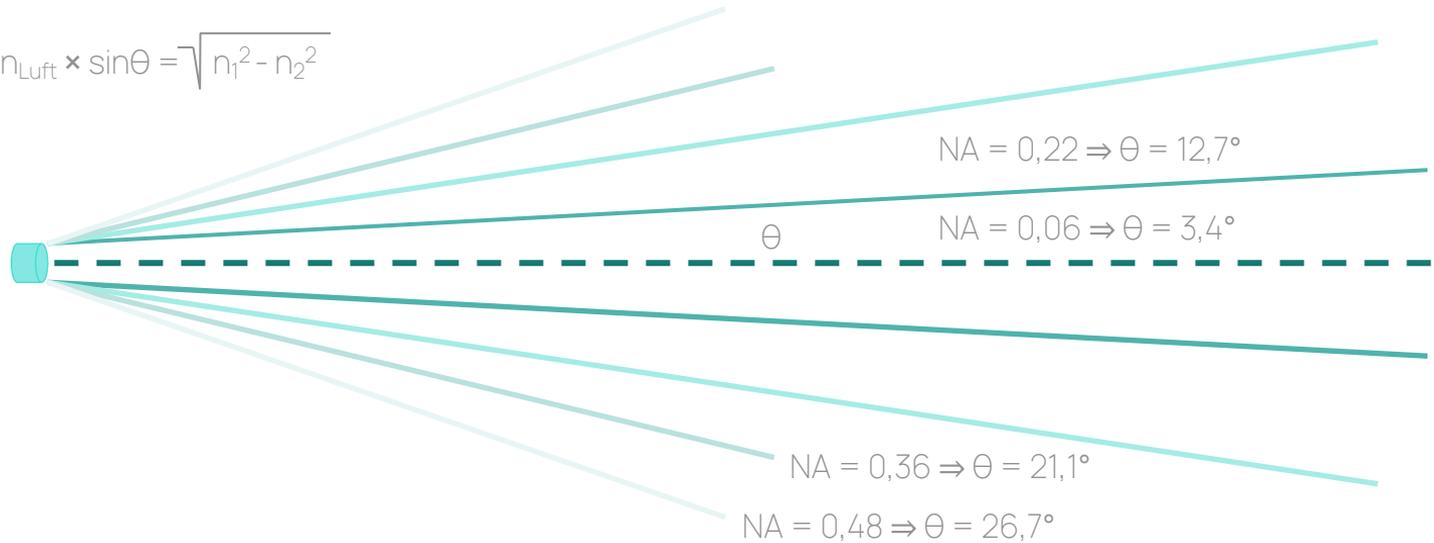
FIBER MANUFACTURING





NUMERICAL APERTURE

$$NA = n_{\text{Luft}} \times \sin\theta = \sqrt{n_1^2 - n_2^2}$$





QUALITY CONTROL & TESTING

FOS Inon has its own independent production Quality Control, which will make sure that the requirements stated in technical drawings have been met accordingly.

Our ISO 9001: 2015 certification underlines this; within a short time, less than two years after the company was founded, we have proven that our quality standards are **not just an idea.**



Production site and legal office



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THANK
YOU

