

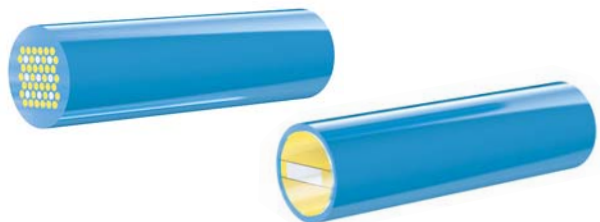


Highly Fluorine Doped Rods

Heraeus has long produced fused silica materials with optimized optical properties for a broad range of specialty fiber applications. We have now successfully developed Fluosil® rods with a unique high fluorine concentration up to 7% in the fused silica network. This leads to a depressed index of refraction up to -26×10^{-3} . Consequently, Fluosil® rods are extremely well suited for new fiber applications and preform designs.

Fluosil® rods can be the basis for new fiber types and can be used as starting material for photonic crystal fibers or other specialty fiber designs. Our rods are available in round as well as in shaped geometries.

Possible fiber designs utilizing Fluosil® rods

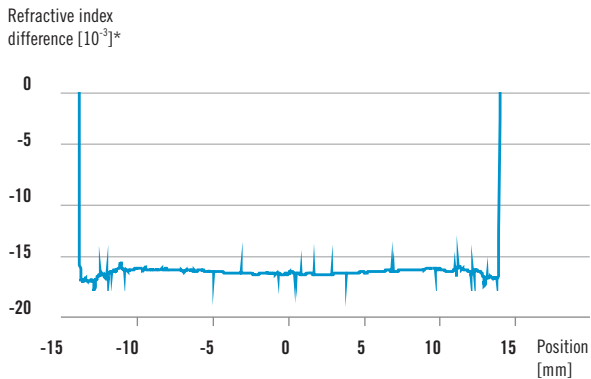


- Un-doped or active core material
- Fluosil® rods (shaped)
- Un-doped cladding material

Heraeus manufactures the base material needed for your fiber applications

Heraeus possesses a comprehensive knowledge and portfolio of base materials with optimized optical properties for preform production and related fiber draw applications. Therefore, we can help our customers determine the best fused silica materials for their applications and ultimately provide the material to meet these required specifications. Due to our long history of experience in this area, our base material products have been developed with consistent and tightly controlled optical properties. We also have been successful in producing base materials for large volumes while controlling costs for price-sensitive applications.

Typical Refractive Index Homogeneity of a Fluosil® Rod



* In respect to un-doped fused silica (Heraeus standard)

Physical Properties

Fluorine content [ppm]	0 ... 70,000
Refractive index*	0 ... -23×10^{-3}
Numerical aperture (NA)**	up to 0.26

* Difference to un-doped fused silica (Heraeus standard)

** In respect to un-doped fused silica (Heraeus standard)

Rod geometries

Heraeus offers highly fluorine doped silica rods in a broad range of diameters. Standard rod diameters range from 1 mm up to 50 mm. Since rod diameters can be precisely adjusted to meet customers' requirements, custom diameters are available upon request.

About us

Heraeus is the key global supplier of high purity synthetic fused silica products for optical fiber manufacturing. We have been a reliable partner in the world telecommunications industry since 1976.

We are certified for ISO 9001:2000 and our Total Quality Management system is based on the Business Excellence Model of the European Foundation for Quality Management (EFQM).

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