Step Index UV Preforms for optical fiber manufacturing

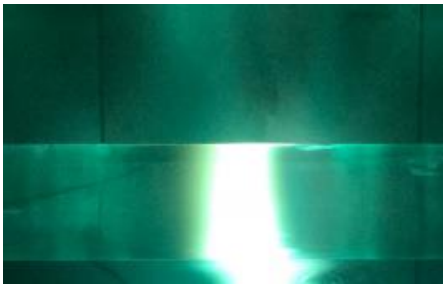
Features and Benefits: Step index Preforms (SIP) for the UV/VIS-range

Designed for optical fibers to provide reliable power or light transmission in a wide spectral range from 200 nm to 800 nm

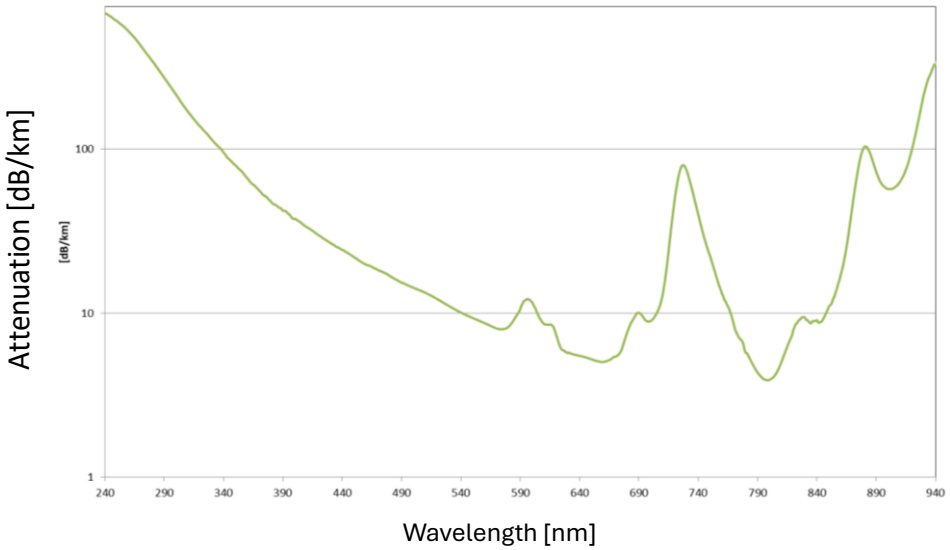
Versatile use in industrial, medical, spectroscopic, R&D applications

Features pure synthetic quartz glass as core material and cladding of fluorine doped silica layers. Other core materials upon request.

Available with high OH content to provide lowest attenuation for application in UV spectral region with a typical numerical aperture of 0.22 +/- 0.02



Typical spectral Attenuation



Custom preform designs upon request

Customized types of core and cladding materials and designs:

Single doped cladding layer or multiple cladding structure

Different fluorine doping concentration for inner and outside layers

Outside layers with pure silica

Higher numerical aperture up to 0.26 (pure silica core)

Lower numerical aperture <0.20 to meet specific laser launch requirements

Higher CCDR values

Geometrical parameters

Preform diameter

If a diameter is specified, the mean diameter of the delivered preform will be within +/- x mm or +/- y % of that diameter. If a diameter range is specified, the mean diameter, the minimum diameter and the maximum diameter will be within that range.

Outer diameter range [mm]	Deviation from mean diameter within one preform
15 – 30	+/- 4.0 %
30 – 40	+/- 3.0 %
40 – 50	+/- 2.5 %
> 50	+/- 2.0 %

Item	Specified value
Preform non-circularity	≤ 2.0 %
Clad concentricity error of preform diameter	≤ 1.0 %
Typical preform length	600 to 1200 mm

Any other specification details upon request.

CCDR (core to clad diameter ratio)

Standard values for single clad preforms

CCDR	Tolerance [+/-]
1.05	0.01/0.005
1.1	0.015
1.2	0.015
1.4	0.025

Custom CCDR values as well as multiple CCDR designs are available upon request.

Optical parameter

NA (numerical aperture)

We can deliver preforms from NA up to 0.26. The standard tolerance for NA is +/- 0.02.