

UV FUSED SILICA BICONVEX LENSES

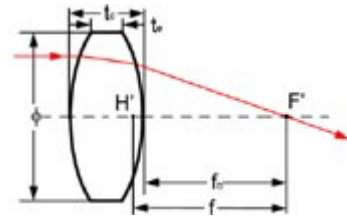
Spherical biconvex lenses of fused silica are mostly used for UV monochromatic lights. Fused silica has almost same performance of transmittance with BK7 in visual and near IR, but has higher performance than BK7 in UV.

The lenses are polished carefully by selecting materials (striae, bubbles, inclusions, and homogeneity) and paying attention to dispersion (digs, scratches, and glosses) to prevent troubles with coherent light

Uncoated and coated with broadband multilayer AR coatings for visible are available.

Standard Specifications:

Optical Material:	UV Grade Fused Silica
Diameter Tolerance:	+0.0, -0.1mm
Design Wavelength:	546.1nm
Design Index:	1.46008 ±0.0005
Paraxial Focal Length:	±2%
Centration:	3 arc minutes
Clear Aperture:	>85%
Surface Quality:	40-20 scratch and dig
Surface Figure:	λ/4
Bevel:	<0.25mm X 45°
Coating:	available upon request



Standard UV Fused Silica Biconvex Lenses

Dia(mm)	f(mm)	R1(mm)	tc(mm)	te(mm)	fb(mm)	Product Number
12.7	15.0	6.90	6.2	2.0	10.8	UQT-BICXF2010
12.7	20.0	9.20	4.5	2.0	16.9	UQT-BICXF2011
12.7	25.0	11.50	3.9	2.0	22.3	UQT-BICXF2012
12.7	30.0	13.80	3.6	2.0	27.5	UQT-BICXF2013
12.7	40.0	18.40	3.1	2.0	37.9	UQT-BICXF2014
25.4	35.0	16.10	8.2	2.0	29.4	UQT-BICXF2015
25.4	50.0	23.00	5.8	2.0	46.0	UQT-BICXF2016
25.4	75.0	34.51	4.4	2.0	72.0	UQT-BICXF2017
25.4	100.0	46.01	3.8	2.0	97.4	UQT-BICXF2018
25.4	150.0	69.01	3.2	2.0	147.8	UQT-BICXF2019
25.4	175.0	80.51	3.0	2.0	172.9	UQT-BICXF2020
25.4	200.0	92.02	2.9	2.0	198.0	UQT-BICXF2021
25.4	250.0	115.02	2.7	2.0	248.2	UQT-BICXF2022
25.4	300.0	138.02	2.6	2.0	298.2	UQT-BICXF2023
25.4	500.0	230.04	2.4	2.0	498.4	UQT-BICXF2024
25.4	1000.0	460.08	2.2	2.0	998.5	UQT-BICXF2025
38.0	50.0	23.00	13.0	3.0	41.1	UQT-BICXF2026

38.0	100.0	46.01	7.1	3.0	95.1	UQT-BICXF2027
38.0	150.0	69.01	5.7	3.0	146.1	UQT-BICXF2028
38.0	200.0	92.02	5.0	3.0	196.6	UQT-BICXF2029
38.0	350.0	161.03	4.1	3.0	347.2	UQT-BICXF2030
38.0	500.0	230.04	3.8	3.0	497.4	UQT-BICXF2030

Please Contact [ultiQuest](#) for other dimensions in prototype and production quantities.

NOTES!

- ➔ Focal lengths of these lenses change as the shifts of refractive indexes of the material according to wavelength. (In the short wavelength range, the refractive index is higher and the focal length is shorter. In the long wavelength range, the refractive index is lower and the focal length is longer.)
- ➔ The edge thicknesses fare theoretical values not including chamfer.
- ➔ Be sure to wear laser safety goggles when checking optical path and adjusting optical axis.