BI-CONVEX LENS

Our Bi-Convex lenses are are pitch polished to provide good surface quality and excellent low-cost imaging performance with a variety of light sources.

Bi-Convex lenses are symmetrical elements with positive focal lengths. They are designed for 1:1 finite conjugate imaging where aberrations such as coma, distortion and lateral chromatic exactly cancel and spher- ical aberration is at a minimum.

Bi-Convex lenses are ideal for finite conjugate imaging over a narrow spectral range. For imaging parallel light (infinite conjugate) or for collimation, Plano-Convex lenses should be used. For broadband situations where chromatic aberration would be a problem, achromats should be considered. For improved performance involving laser light, bestform lenses could be considered as well.

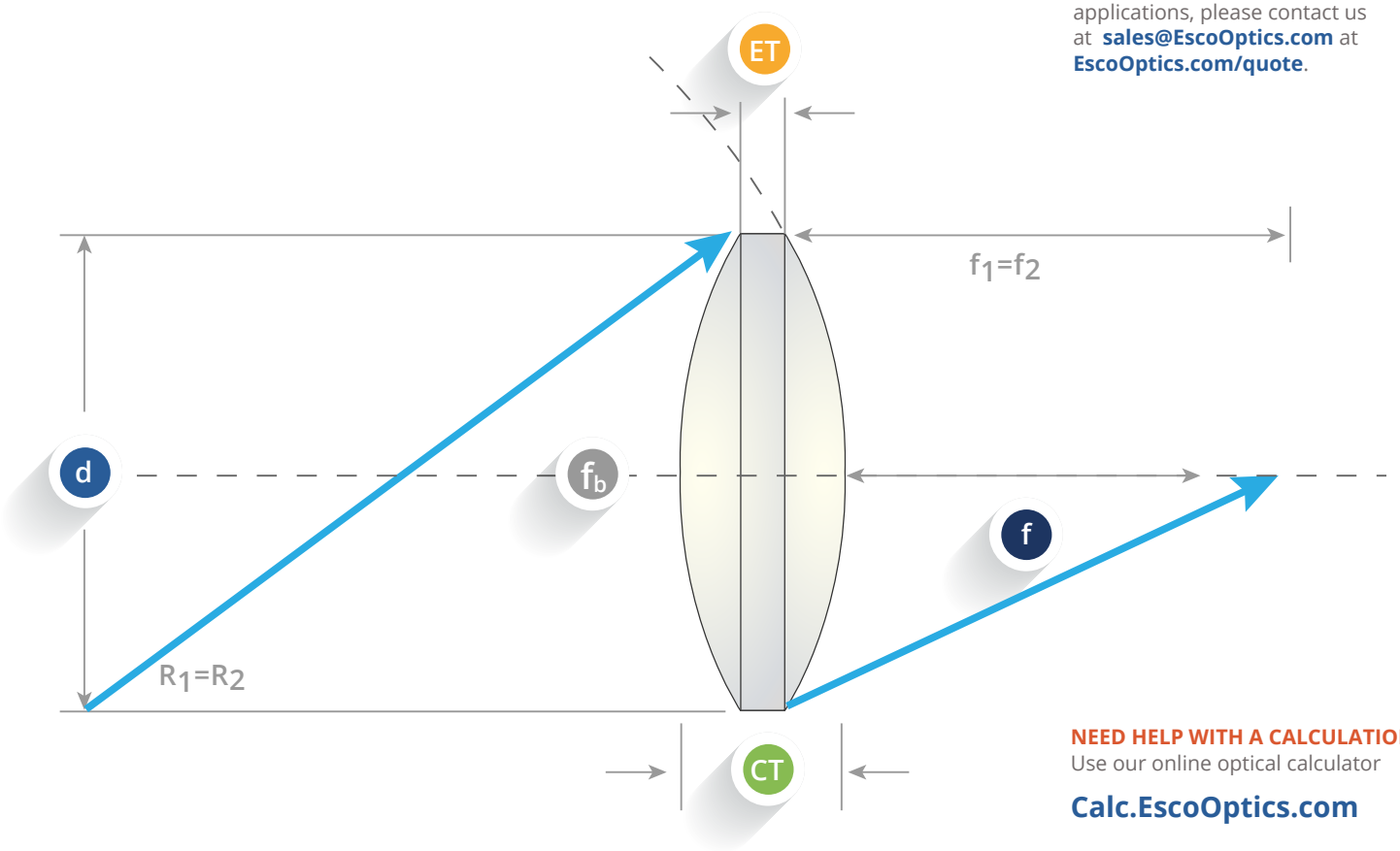
N-BK7 Optical Glass

S1 UV Grade Fused Silica

G1 Commercial Grade Fused Quartz

In addition to our standard lines of Bi-Convex lenses, we also manufacture a variety of custom lenses.

For more information on these and other custom products or applications, please contact us at **sales@EscoOptics.com** at **EscoOptics.com/quote**.



NEED HELP WITH A CALCULATION?
Use our online optical calculator

Calc.EscoOptics.com

Focal Length Tolerance	+/- 3%	Centration	<3'
Diameter Tolerance	+/- 0.125 mm	Surface Quality	60-40 scratch-dig
Thickness Tolerance	+/- 0.5 mm	Edges	Fine ground and beveled
Design Wavelength	546 nm		

All dimensions in mm unless otherwise specified

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95 Chamberlain Road | Oak Ridge, NJ 07438 | 800.922.3726 | EscoOptics.com

Made in the USA

BI-CONVEX LENS

S1-UV Grade Fused Silica

P/N	f_{nom}	Diameter	f/#	CT	ET	EFL_{546}	EFL_{250}	BFL_{250}
A1BI05005	12.7	12.7	1.0	5.3	1.5	13.7	12.6	10.7
A1BI05010	25.4	12.7	2.0	3.3	1.5	26.0	23.9	22.8
A1BI10010	25.4	25.4	1.0	9.0	1.5	27.1	25.1	21.7
A1BI05015	38.1	12.7	3.0	2.7	1.5	38.6	35.5	34.6
A1BI10015	38.1	25.4	1.5	6.3	1.5	39.3	36.1	34.0
A1BI15015	38.1	38.1	1.0	13.3	2.0	40.5	37.4	32.7
A1BI05020	50.8	12.7	4.0	2.4	1.5	51.2	47.1	46.3
A1BI10020	50.8	25.4	2.0	5.0	1.5	51.8	47.7	45.8
A1BI15020	50.8	38.1	1.3	10.1	2.0	52.6	48.5	45.0
A1BI20020	50.8	50.8	1.0	17.0	2.0	53.9	49.8	43.7
A1BI10030	76.2	25.4	3.0	3.8	1.5	77.0	70.8	69.4
A1BI15030	76.2	38.1	2.0	7.3	2.0	77.5	71.3	68.9
A1BI20030	76.2	50.8	1.5	11.5	2.0	78.2	72.1	68.1
A1BI10040	101.6	25.4	4.0	3.2	1.5	102.2	94.1	92.9
A1BI15040	101.6	38.1	2.7	5.9	2.0	102.6	94.5	92.5
A1BI20040	101.6	50.8	2.0	9.0	2.0	103.2	95.0	91.9
A1BI20060	152.4	50.8	3.0	6.6	2.0	153.6	141.3	139.1

Material Code	Type	Striae per MIL-G-174A	Index Variation $\Delta n(x10^{-6})$
S1-UVA	Fused Silica	A	6
S1-UVB	Fused Silica	A	10
A1	Fused Quartz or Fused Silica	B	10
G1	Fused Quartz or Fused Silica	C-D	20
I2-IR	Fused Quartz	A	4
N-BK7/S-BSL7	Optical Glass	A	10

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BI-CONVEX LENS

	P/N	f_{nom}	Diameter	f/#	CT	ET	EFL_{546}	EFL_{250}	BFL_{250}
G1 Commercial Grade Fused Quartz	A4BI05005	12.7	12.7	1.0	5.3	1.5	13.7	12.9	10.7
	A4BI05010	25.4	12.7	2.0	3.3	1.5	26.0	24.5	22.8
	A4BI10010	25.4	25.4	1.0	9.0	1.5	27.1	25.6	21.7
	A4BI05015	38.1	12.7	3.0	2.7	1.5	38.6	36.4	34.6
	A4BI10015	38.1	25.4	1.5	6.3	1.5	39.2	37.0	34.0
	A4BI15015	38.1	38.1	1.0	13.3	2.0	40.5	38.3	32.7
	A4BI05020	50.8	12.7	4.0	2.4	1.5	51.2	48.3	46.3
	A4BI10020	50.8	25.4	2.0	5.0	1.5	51.7	48.7	45.8
	A4BI15020	50.8	38.1	1.3	10.1	2.0	52.6	49.7	45.0
	A4BI20020	50.8	50.8	1.0	17.0	2.0	53.9	50.9	43.7
	A4BI10030	76.2	25.4	3.0	3.8	1.5	76.9	72.5	69.4
	A4BI15030	76.2	38.1	2.0	7.3	2.0	77.5	73.1	68.9
	A4BI20030	76.2	50.8	1.5	11.5	2.0	78.2	73.8	68.1
	A4BI10040	101.6	25.4	4.0	3.2	1.5	102.2	96.3	92.9
	A4BI15040	101.6	38.1	2.7	5.9	2.0	102.6	96.8	92.5
	A4BI20040	101.6	50.8	2.0	9.0	2.0	103.2	97.3	91.9
	A4BI20060	152.4	50.8	3.0	6.6	2.0	153.6	144.8	139.1
N-BK7/S-BSL7 Optical Glass	A6BI05005	12.7	12.7	1.0	4.8	1.5	13.7	13.5	11.9
	A6BI05010	25.4	12.7	2.0	3.1	1.5	26.2	25.9	24.9
	A6BI10010	25.4	25.4	1.0	8.5	2.0	27.2	26.9	23.9
	A6BI05015	38.1	12.7	3.0	2.5	1.5	39.0	38.5	37.7
	A6BI10015	38.1	25.4	1.5	6.2	2.0	39.6	39.2	37.1
	A6BI15015	38.1	38.1	1.0	11.8	2.0	40.6	40.2	36.1
	A6BI05020	50.8	12.7	4.0	2.3	1.5	51.8	51.2	50.4
	A6BI10020	50.8	25.4	2.0	5.1	2.0	52.3	51.7	49.9
	A6BI15020	50.8	38.1	1.3	9.2	2.0	53.0	52.4	49.3
	A6BI20020	50.8	50.8	1.0	15.1	2.0	54.0	53.4	48.2
	A6BI10030	76.2	25.4	3.0	4.1	2.0	77.8	76.9	75.5
	A6BI15030	76.2	38.1	2.0	6.7	2.0	78.2	77.3	75.1
	A6BI20030	76.2	50.8	1.5	10.4	2.0	78.9	78.0	74.4
	A6BI10040	101.6	25.4	4.0	3.5	2.0	103.4	102.2	101.0
	A6BI15040	101.6	38.1	2.7	5.5	2.0	103.7	102.5	100.7
	A6BI20040	101.6	50.8	2.0	8.2	2.0	104.2	103.0	100.2
	A6BI20060	152.4	50.8	3.0	6.1	2.0	155.2	153.4	151.4