

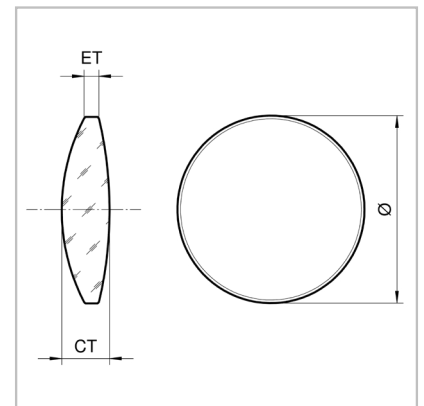
## Best Form Lenses

Best form lenses are positive lenses with minimized spherical aberrations. They are used if the highest demands are made of the spot image.

The spherical aberration is clearly defined by the diameter of the incident beam and its wavelength. If these values are known, then the radii of curvature of the lens can be designed to create as low an aberration as possible.

Best form lenses generally have better imaging qualities than conventional positive lenses.

In the table, you will find focal length values for commonly used wavelengths.



### Nomenclature

<b>BFPL</b>	<b>-25.4</b>	<b>/200.0</b>	<b>C</b>
Product code (Best Form Positive Lens)	Diameter in mm	Focal length in mm	Material code C: BK7

### Specifications

Material	BK7
Diameter tolerance	+ 0.00 mm; - 0.20 mm
Thickness tolerance	± 0.20 mm
Focus tolerance	± 2 %
Centering tolerance	4/3' according to ISO 10110
Surface figure Both surfaces	3/-(0.2/-) according to ISO 10110 $\lambda/10$ according to MIL-O-1380A
Surface quality	5/4 x 0.025 for 1.0" substrates according to ISO 10110 10-5 according to MIL-O-1380A
Protective chamfer	0.2 - 0.4 mm x 45°
Clear aperture	85 % of diameter

## BK7 Bestform Positive Lenses

Part No.	Diameter Ø [mm]	f [mm] (488 nm) n = 1.5222	f [mm] (532 nm) n = 1.5195	f [mm] (633 nm) n = 1.5151	f [mm] (1064 nm) n = 1.5066	Input Diameter [mm]	Spot Diameter [µm]	Center Thickness CT [mm]	Edge Thickness ET [mm]
BFPL-12.7/25.0C	12.7	24.3	24.4	24.6	25.0	4.0	6.8	4.0	2.3
BFPL-25.4/50.0C	25.4	50.0	50.2	50.7	51.5	7.0	8.5	4.0	0.8
BFPL-25.4/75.0C	25.4	73.3	74.1	74.7	76.0	10.0	11.5	4.0	1.9
BFPL-25.4/100.0C	25.4	100.3	100.3	101.6	103.3	12.0	10.8	4.0	2.4
BFPL-25.4/125.0C	25.4	123.0	123.0	124.7	126.8	14.5	12.6	4.0	2.7
BFPL-25.4/150.0C	25.4	146.4	146.4	148.5	151.0	16.5	13.1	4.0	2.9
BFPL-25.4/200.0C	25.4	197.3	197.3	200.0	203.4	20.5	13.8	4.0	3.2

Other sizes and materials are available upon request.

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