

## Optical Windows

### BK7 and Fused Silica Windows

Specifications:

Material: BK7 grade A optical glass

UV grade fused silica

Diameter: +0.0,-0.1mm, Thickness: ±0.2mm

Parallelism: see the table

Surface quality: see the table

Both edges are beveled: 0.25x45°

Wavefront Distortion: $\lambda/10$ per 25mm; Surface Quality: 20-10 scratch dig					
$\phi$ (mm)	t (mm)	BK7 1' Parallelism	BK7 10' Parallelism	Fused Silica 1' Parallelism	Fused Silica 10' Parallelism
		Part number	Part number	Part number	Part number
10.0	6.0	WIN0001	WIN0011	WIN0101	WIN0111
12.7	6.0	WIN0002	WIN0012	WIN0102	WIN0112
25.0	6.0	WIN0003	WIN0013	WIN0103	WIN0113
25.4	6.35	WIN0004	WIN0014	WIN0104	WIN0114
30.0	6.0	WIN0005	WIN0015	WIN0105	WIN0115
50.0	10.0	WIN0006	WIN0016	WIN0106	WIN0116

  

Wavefront Distortion: $\lambda$ per 25mm; Parallelism: 1' Surface Quality: 60-40 scratch dig			
$\phi$ (mm)	t (mm)	BK7	UV Fused Silica
		Part number	Part number
10.0	3.0	WIN0201	WIN1201
12.7	3.0	WIN0202	WIN1202
25.0	3.0	WIN0203	WIN1203
25.4	3.0	WIN0204	WIN1204
30.0	3.0	WIN0205	WIN1205
50.0	3.0	WIN0206	WIN1206

### Sapphire Windows

Specifications:

Materials: Anisotropic synthetic sapphire crystal( $Al_2O_3$ ), random orientation

Diameter: +0.0, -0.1mm, Thickness: ±0.2mm, Parallelism: 3 arc minutes

Flatness:  $\lambda$  per 25mm at 633nm over 90% of aperture

Surface quality: 80-50 scratch and dig. Both edges are beveled.



$\phi$ (mm)	t(mm)	Part number	$\phi$ (mm)	t(mm)	Part number
8.0	0.5	SAW0001	25.0	2.0	SAW0006
8.0	0.9	SAW0002	25.4	3.0	SAW0007
12.0	1.0	SAW0003	25.4	5.0	SAW0008
20.0	2.0	SAW0004	30.0	1.2	SAW0009
25.0	1.0	SAW0005	30.0	2.0	SAW0010

**Calcium Fluoride (CaF<sub>2</sub>) Windows**

Specifications:

Materials: Calcium Fluoride single crystal

Transparent range: 0.13-10 $\mu$ m

Diameter: +0.0, -0.1mm, Thickness:  $\pm$ 0.2mm

Parallelism: 1 arc minute

Flatness:  $\lambda/2$  at 632.8nm

Surface quality: 80-50 scratch and dig

Beveled: 0.25x45 $^\circ$

$\phi$ (mm)	t(mm)	Part number	$\phi$ (mm)	t(mm)	Part number
12.7	2.0	CAW0001	50.0	3.0	CAW0004
25.4	3.0	CAW0002	50.0	8.0	CAW0005
38.0	5.0	CAW0003	76.2	10.0	CAW0006

**BK7 and Fused Silica Wedges**

Specifications:

Design wavelength:

632.8nm(BK7)

308nm(UV Fused Silica)

Material:

BK7 grade A optical glass

(n=1.51467 at 632.8nm)

UV fused silica

(n=1.48575 at 308nm)

Surface quality: 60-40 scratch and dig

Wedge angle:  $\pm$ 1 minute

Flatness: Flatness:  $\lambda/4$  at 632.8nm

Diameter: +0.0,-0.1mm

Thickness:  $\pm$ 0.2mm

Beveled: 0.25x45 $^\circ$

$\phi$ (mm)	$\beta$ degree	BK7		Fused Silica	
		$\alpha$	Part number	$\alpha$	Part number
25.4	1	1 $^\circ$ 57'	WED0011	2 $^\circ$ 4'	WED0111
25.4	2	3 $^\circ$ 53'	WED0012	4 $^\circ$ 7'	WED0112
25.4	4	7 $^\circ$ 46'	WED0013	8 $^\circ$ 14'	WED0113
25.4	6	11 $^\circ$ 39'	WED0014	12 $^\circ$ 21'	WED0114