

Flat-wedge windows



Windows with a slight wedge are commonly used to prevent harmful laser cavity feedback and beam interference effects. Standard 4Lasers uncoated flat-wedge windows are fabricated from BK7 and UV grade fused silica optical glass. UV grade fused silica glass flat-wedge window is a good option for UV, ultrashort pulse and high-power laser

applications because of a low sensitivity to temperature variations, relatively high damage threshold and UV transmission down to 185 nm. BK7 glass window is a cost-effective choice for visible and near-infrared range, low or mid-power laser and non-laser applications.

Main features

- Fabricated from high-quality, laser grade polished UV grade fused silica, BK7 glasses
- Standard diameters are $\varnothing 12,7$ mm, $\varnothing 25,4$ and $\varnothing 50,8$ mm
- Wedge angle selection from $0,5^\circ$ to 3°
- Coatings, custom substrate material, dimensions are available upon request

Application examples

- Protection from undesirable laser cavity feedback
- Elimination of fringe pattern due to back reflections
- Variable beam steering
- Beam sampling

Standard specifications

FLAT-WEDGE WINDOWS	
Substrate material	BK7, UVFS
Wavelength range	Uncoated BK7 windows: 350 nm - 2 μ m Uncoated UVFS windows: 185 nm - 2,1 μ m
Clear aperture	>85%
Diameter tolerance	+0/-0,15 mm
Thickness tolerance	$\pm 0,25$ mm
Wedge tolerance	± 5 arcmin
Protective chamfers	<0,35 mm at 45°
Surface quality	$\varnothing < 25,4$ mm: <math>\lambda/8@632,8 nm $\varnothing > 25,4$ mm: 20-10 S-D
Surface flatness	$\varnothing < 25,4$ mm: <math>\lambda/8@632,8 nm $\varnothing > 25,4$ mm: <math>\lambda/5@632,8 nm
Coatings	Uncoated, available upon request

Standard products

MATERIAL	FACE DIMENSIONS	THICKNESS	WEDGE ANGLE	SKU	PRICE
BK7	$\varnothing 12,7$ mm	5 mm	$0,5^\circ$	6277	18 €
	$\varnothing 25,4$ mm	3 mm	1°	6278	30 €
	$\varnothing 25,4$ mm	6,35 mm	3°	6279	30 €
UVFS	$\varnothing 50,8$ mm	6,35 mm	1°	6280	54 €
	$\varnothing 12,7$ mm	5 mm	$0,5^\circ$	6225	20 €
	$\varnothing 25,4$ mm	3 mm	1°	6274	32 €
	$\varnothing 25,4$ mm	6,35 mm	3°	6275	32 €
	$\varnothing 50,8$ mm	6,35 mm	1°	6276	74 €