Optics



Brewster Windows

Brewster Windows are uncoated substrates that are designed to be used at Brewster's Angle (the angle at which p-polarized light incident on the surface is not reflected). Brewster's Angle is calculated from:

 $B = tan^{-1}(n)$

where B is Brewster's Angle and n is the index of refraction of the material. At this angle, p-polarization reflectance drops to zero. When used in a laser cavity, a Brewster Window reduces the cavity loss for p-polarized light over s-polarized light. The result of preferentially reducing the loss along one polarization axis is that the laser will emit linearly polarized light.



Zero Reflection Loss for P-Polarized Light

Specifications

- Material: UV Fused Silica
- **Parallelism:** ≤5arcsec
- Thickness Tolerance: ±0.1mm
- Surface Quality: 10-5 Scratch Dig
- **Transmitted Wavefront:** $\lambda/20$
- Brewster Angle: 55° 32'
- Minor Axis Tolerance: +0.00/-0.13mm

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ITEM#	DIAMETER	THICKNESS	\$		\$ £		€		RMB	
BW0601	6.0mm	1.0mm	\$	73.00	£	46.00	€	67,90	¥	697.20
BW0801	8.0mm	1.0mm	\$	94.00	£	59.20	€	87,40	¥	897.70
BW0802	8.0mm	2.0mm	\$	115.00	£	72.50	€	107,00	¥	1,098.30
BW0902	9.0mm	2.0mm	\$	117.00	£	73.70	€	108,80	¥	1,117.40
BW1302	13.0mm	2.0mm	\$	156.00	£	98.30	€	145,10	¥	1,489.80
BW1602	16.0mm	2.0mm	\$	156.00	£	98.30	€	145,10	¥	1,489.80



Wedge Flats are used primarily in laser beam steering applications. A beam normal to the perpendicular surface of the prism is deflected through the "Angular Deviation" shown in the price box. By combining two prisms that can be rotated independently, it is possible to direct the beam anywhere within the cone angle defined by 4 times the "Angular Deviation" of a single wedge.

Volume Discounts & Guaranteed Inventory for OEMs

Round Wedged Flats

Diameter

¥



Specifications

- Material: BK7, Grade A Dimensional Tolerance:
- Surface Quality:
- 40-20 Scratch-Dig
- Surface Flatness: $\lambda/10$
- Design Wavelength: 633nm
- Thin Edge of Wedge: 3.00mm

- ±0.15mm Diameter: 25.4mm +0.0/-0.3
- Angular Tolerance: ±30arcsec

Standard Broadband AR Coatings

To order the wedged flat with a standard broadband AR Coating, add the coating code to the Item#, and add the coating cost to the flat's price.

COATING	WAVELENGTH	\$	£	€	RMB		
-A	350-650nm	\$ 9.20	£ 5.80	€ 8,60	¥ 87.90		
-B	650-1050nm	\$ 9.20	£ 5.80	€ 8,60	¥ 87.90		
-С	1050-1620nm	\$12.20	£ 7.70	€ 11,30	¥ 116.50		

the cost would be \$29.90 + \$9.20 = \$39.10.

	PRICE UNCOATED (Add suffix for coated lens)							ed lens)	ANG.	Т	WEDGE	POWER
ITEM #		\$		£		€ RMB		DEV.*	(mm)	ANGLE	DIOPTERS	
PS810	\$	29.90	£	18.80	€	27,80	¥	285.50	2°	4.72	3° 53'	3.5
PS811	\$	29.90	£	18.80	€	27,80	¥	285.50	4°	6.43	7° 41'	7.0
PS812	\$	29.90	£	18.80	€	27,80	¥	285.50	6°	8.11	11° 22'	10.5
PS813	\$	29.90	£	18.80	€	27,80	¥	285.50	8°	9.74	14° 52'	14.1
PS814	\$	29.90	£	18.80	€	27,80	¥	285.50	10°	11.33	18° 9'	17.6

*Angular Deviation

Optical Systems

Free Space Isolators

E-O Devices

Spherical Singlets

Multi-Element

Cylindrical Lenses

Aspheric Lenses

Diffusers & Lens Arrays

Windows

Gratings

Filters & Attenuators **Gas Cells**

Polarization Optics

Beamsplitters

Prisms