

Laser Optex Inc

Laser grade CVD ZnSe Brewster Window



Rectangular Brewster Windows are uncoated substrates which are used in an optical system at Brewster's Angle; the angle at which p-polarized light suffers no reflection loss. The angle at which p reflectance drops to zero, termed Brewster's Angle, can be calculated from:

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

where B is Brewster's Angle and n is the index of refraction of the material. When used in a laser cavity, a Brewster Window causes the laser output to be polarized.

Fixed beam polarization is often required in order for optical components in the system to perform consistently as designed. Since many optics and coatings are polarization sensitive, a laser with a time varying polarization state can cause apparent fluctuations in system performance.

While virtually all of the p component of polarization is transmitted by a Brewster Window, most of the s component is reflected. For ZnSe, 50% of the incident s-polarized light is reflected. Ge, with a higher index of refraction, has an approximately 87% fresnel reflection of the s-polarization component at 10.6 μ m.

Dimension Tolerance	+0,000" -0,005"
Thickness Tolerance	+0,005" -0,010"
Surface figure at 0.63 μm	1 fringe – 1/2 fringe
Parallelism	< 3 arc minutes
Surface Quality, Scratch Dig	60-40

Part Number	dimension, mm	Thickness, mm	Price, USD
BWZE-214	42×16.5	2.0	125
BWZE-312	50×18.0	2.0	145
BWZE-314	53×20.0	2.0	155
BWZE-314	60×30.0	2.0	250
BWZE-423	61×22.0	2.0	185
BWZE-426	63×23.0	2.0	195
BWZE-314	66×25.4	2.0	235
BWZE-642	60×40.0	2.0	280
BWZE-314	76×28.0	3.0	330
BWZE-314	82×30.0	4.0	475
BWZE-314	90×34.0	4.0	587
BWZE-314	98×36.0	4.0	675

Prices are for 1 piece in 5 pieces order.

Discounts:

Discounts available depends on volume of the order.

Delivery

Overnight delivery from stock or produce in two weeks

Order:

You can send your order by [e-mail](#) or fax .

Non-standard sizes and requirements:

You can give us your requirements by e-mail

sales@laseroptex.com We reply as soon as possible.