

# ZINC SELENIDE (ZnSe) WINDOWS

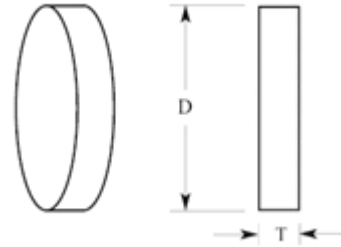
ZnSe windows for infrared light, the transmission range is 0.5  $\mu\text{m}$  - 22  $\mu\text{m}$ . Used for high power CO<sub>2</sub>-laser optics at 10.6 microns. Zinc Selenide is produced by synthesis from zinc vapour and H<sub>2</sub>Se gas, forming as sheets on graphite susceptors.

In contrast to other optical materials for infrared light such as Ge (germanium), or Si (silicon), ZnSe windows allow transmission of some visible light, enabling easier adjustment (alignment) of the optical axis of infrared laser systems and enabling use of more convenient and cheaper He-Ne lasers.

Non-coated and AR coated products for CO<sub>2</sub> lasers are available.

## Standard Specifications:

Optical Material:	Laser Grade Zinc Selenide
Diameter Tolerance:	+0.0, -0.1mm
Thickness Tolerance:	$\pm 0.2\text{mm}$
Clear Aperture:	>90%
Parallelism:	<3 arc minutes
Surface Quality:	see the table
Wavefront Distortion:	see the table
Bevel:	<0.25mm X 45°
Coating:	available upon request



## Standard ZnSe Windows

Dia(mm)	Thickness(mm)	Wavefront Distortion	Surface Quality	Product Number
8.0	2.0	Lambda/4	40-20	UQT-WNZH0100
10.0	2.0	Lambda/4	40-20	UQT-WNZH0101
12.7	2.0	Lambda/4	40-20	UQT-WNZH0102
15.0	2.0	Lambda/4	40-20	UQT-WNZH0103
25.4	3.0	Lambda/2	40-20	UQT-WNZH0104
38.10	3.0	Lambda/2	40-20	UQT-WNZH0105

Please Contact [ultiQuest](#) for other dimensions in prototype and production quantities.

## NOTES!

- ➔ ZnSe reacts readily with acidic substances, generating toxic selenium oxide gas. Never clean with acidic washing solutions.
- ➔ ZnSe is classified as a toxic material by law. Transactions involving ZnSe or products incorporating ZnSe require a certificate of transfer.
- ➔ Disposal of ZnSe optics as general waste is prohibited. Please notify us if you need to dispose of such products. (Ultiquest Technologies products only.)
- ➔ Be sure to wear laser safety goggles when checking optical path and adjusting optical axis.