

DATA SHEET

ZnSe

UQG Material ZnSe (Zinc Selenide) is an optical material featuring high purity, strong environmental adaptability, ease of processing. ZnSe is widely used in laser and infrared thermal imaging systems. It possesses low light transmission loss and excellent transmission properties. ZnSe has a low absorption rate at 10.6 microns, making it the preferred material for high-power CO2 laser optical components.

ZnSe is also used in various focusing mirrors, window materials, output coupling, and beam expanders. Due to its excellent optical properties, it has become a commonly used material for various optical systems. It is widely used in fields such as lasers, medicine, astronomy, and infrared night vision.



Product Specifications

Specification	
Crystal Growth	CVD
Crystal Structure	Polycrystalline
Particle Size	$\leq 100 \mu\text{m}$
Purity	5N
Grade	Infrared, laser, low power

Optical Properties	
Transmission Spectrum	0.5 ~ 22 μm
Max Transmittance, 10.6 μm	$\geq 70\%$
Absorption Coefficient, 10.6 μm	$\leq 0.0005\text{cm}^{-1}$
Refractive Index Inhomogeneity @0.6328 μm	3×10^{-6}
Refractive Index, 10 μm	2.4070
Coefficient of Refractive index (dn/dt) (10.6 μm)	$61 \times 10^{-5}/^{\circ}\text{C}$

Wavelength (μm)	MS ZnSe
2	2.4467
3	2.4380
4	2.4336
5	2.4300
6	2.4263
7	2.4223
8	2.4178
9	2.4127
10	2.4070
11	2.4006
12	2.3935
13	2.3857
14	2.3768

