

ZINC SELENIDE (ZnSe)

Refrac Index (n) vs Wavelength (λ)

Wavelength (μm)	Refractive Index
0.54	2.6754
0.58	2.6312
0.62	2.5994
0.66	2.5755
0.70	2.5568
0.74	2.5418
0.82	2.5193
0.86	2.5107
0.90	2.5034
0.98	2.4916
1.00	2.4892
1.40	2.4609
1.80	2.4496
2.20	2.4437
2.60	2.4401
3.00	2.4376
3.80	2.4339
4.20	2.4324
4.60	2.4309
5.00	2.4295
5.80	2.4266
6.20	2.4251
6.60	2.4235
7.00	2.4218
7.80	2.4183
8.20	2.4163
8.60	2.4143
9.40	2.4100
9.80	2.4077
10.2	2.4053
10.6	2.4028
11.4	2.3974
11.8	2.3945
12.2	2.3915
12.6	2.3883
13.4	2.3816
13.8	2.3781
14.2	2.3744
14.6	2.3704
15.4	2.3623
15.8	2.3579
16.2	2.3534
16.6	2.3487
17.0	2.3438
17.8	2.3333
18.2	2.3278

Optical Properties

Refractive Index	2.4028
Thermal co-efficient of Refractive Index	61×10^{-6}
Transmission Range	1.1 – 14.0 μm

Thermal Properties

Thermal Linear Expansion	$7.1 \times 10^{-6} / \text{K}$ at 273 K
Thermal Conductivity	$18 \text{ W m}^{-1} \text{ K}^{-1}$ at 298 K
Specific Heat Capacity	$339 \text{ J Kg}^{-1} \text{ K}^{-1}$
Melting Point	1525 °C

Mechanical Properties

Density	5.27 g/cc
Knoop Hardness	120
Young Modulus	67.2 GPa
Bulk Modulus	40 GPa
Poisson Ratio	0.28

Zinc Selenide

for 10mm Thickness

