

PROPERTIES of Zinc Selenide (ZnSe)**MECHANICAL PROPERTIES**

Young Modulus	: 67.2 GPa
Bulk Modulus	: 40 GPa
Knoop Hardness	: 1.03 GPa
Modulus of Rupture	: 55.1 MPa
Poisson's Ratio	: 0.28
Density	: 5.27 g/cm ³

THERMAL PROPERTIES

Melting Point	: 1525°C
Max operating temperature (with coating)	: 100°C
Specific Heat	: 0.081 cal/(g·°C) @ 23°C
Thermal Expansion Coefficient	: 5,6x10 ⁻⁶ °C ⁻¹ a -100°C
	: 7,1x10 ⁻⁶ °C ⁻¹ a 0°C
	: 8,3x10 ⁻⁶ °C ⁻¹ a 200°C

THERMAL PROPERTIES

Thermal Conductivity	: 18 W/(m·°C) @ 20°C
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ELECTRICAL PROPERTIES

Dielectric Constant for 10 ⁶ Hz	: 6.76
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OPTICAL PROPERTIES

Transmission Range	: 0.6...21μm
Transmittance (without coating)	: > 68% (2.5...12.5μm)
Refractive Index	: 2.5914 a 0,6328μm
	: 2.4865 @ 1,063μm
	: 2.4508 @ 2,500μm
	: 2.4015 @ 10,6μm
Damage Threshold	: > 5 × 10 ⁴ W/cm ²

TRASMISSION CURVE (with coating from 7.5 to 14μm)