



Gallium Arsenide

Optical

Transmission Range :	1 to 16 μm
Refractive Index :	3.2727 @ 10.33 μm
Reflection Loss :	44% @ 10.33 μm (loses from two surfaces)
Absorption Coefficient :	0.01 cm^{-1}

Physical

Density :	5.315 g/cm^3
Melting Point :	1511 $^{\circ}\text{C}$
Thermal Conductivity :	48 $\text{W m}^{-1} \text{K}^{-1}$ at RT
Linear CTE :	$5.7 \times 10^{-6} /^{\circ}\text{C}$ at RT
Specific Heat Capacity :	360 $\text{J Kg}^{-1} \text{K}^{-1}$

Mechanical

Youngs Modulus (E) :	84.8 GPa
Bulk Modulus (K) :	75.5 GPa
Rupture Modulus :	71.9 MPa
Hardness :	750 Knoop
Poisson Ratio :	0.31

Chemical

Chemical Formula	GaAs
Solubility :	Insoluble in water
Molecular Weight :	144.64 g/mole

Notes

As GaAs is arsenic bearing, precautions in handling and working should be observed.