

Tellurium Dioxide (TeO₂)

Acousto-optic Devices

Crystal Properties	Crystal Class	Tetragonal
	Point Group	422
	Space Group	P4 ₁ 2 ₁ 2
	Lattice Parameter	a 0.4810, c 0.7613 nm
	Melting Point	730 °C
	Density	5.99 g/cm ³
	Hardness	4.5 Mohs
	Photo-elastic Coefficient	P ₁₁ 0.074, P ₁₃ 0.340, P ₃₁ 0.091, P ₃₃ 0.241 (632.8 nm)
	Figure of Merit	M ₂ 793 x 10 ⁻¹⁸ S ³ /g
	Transparency Range	350 ~ 500 nm
	Refractive Index	n _o 2.55, n _e 2.142 (632.8 nm)
	Transmittivity	70% (632.8 nm)
	Phase Velocity	616 m/s (Transverse Wave [110] - Propagation)
Gradient of Refractive Index	5 x 10 ⁻⁵ /cm	

Specifications	Boules	Typical Diameter	ø 35±2, ø 50±2 mm
		Typical Length	50 mm
		Typical Orientation	[001] [110]
	Blocks	Typical Size	30x30x50 mm
		Polish	0.25 ~ 0.016 µm

