

**Yttriumvanadat  
für VIS und IR-Bereich**

**Yttrium Orthovanadate  
for VIS and IR-range**

Formula	YVO <sub>4</sub>		
Growth method	Czochralski method		
Max. sizes, (mm)	∅25		
Transmission range, (µm) (Thickness 1 mm)	0.4 – 5.0		
Structure	Tetragonal		
Density (g/cm <sup>3</sup> )	4.22		
Melting point (°C)	1825		
Hardness (Mohs)	5		
Thermal expansion coefficient (10 <sup>-6</sup> /K)	α <sub>a</sub> 4.4 α <sub>c</sub> 11.4		
Thermal conductivity (W m <sup>-1</sup> K <sup>-1</sup> )	vertical c-axis: 5.1 parallel a-axis: 5.23		
Thermal optical coefficient (10 <sup>-6</sup> /K)	dn <sub>o</sub> /dT: -8.5 dn <sub>e</sub> /dT: 83.0		
Solubility in water (g/100 cm <sup>3</sup> )	Non-hygroscopic		
Wavelength (µm)	0.63	1.3	1.55
Refractive index n <sub>o</sub>	1.9929	1.9500	1.9477
n <sub>e</sub>	2.2154	2.1554	2.1486

Transmission spectrum:

