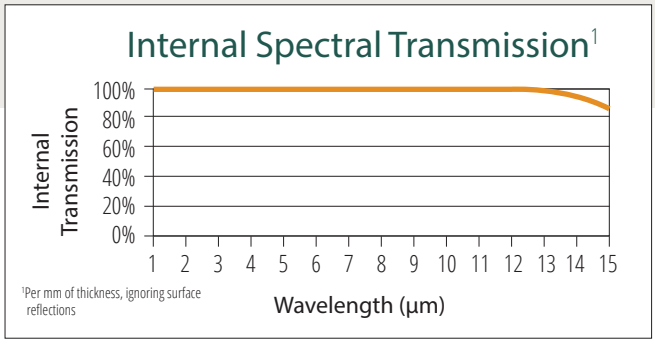
Advantages of LightPath's BD6 Chalcogenide Glass

- High Transmission
- Low Cost and Weight
- Optical Athermalization
- Can be molded, polished or diamond-turned
- No Germanium Content

BD6 chalcogenide glass is ideal for use in MWIR and LWIR thermal imaging systems. Our team of experienced engineers will work with you to design lenses for your application.



Optical Properties

Refractive Indices and Absorption Coefficient		
Wavelength λ (µm)	Refractive Index	Absorption Coefficient (cm^{-1})
2	2.8230	0.003
4	2.7978	0.002
6	2.7914	0.002
8	2.7867	0.002
10	2.7816	0.003
12	2.7755	0.004
14	2.7683	0.068

Internal Transmission Formula

$T_i = e^{(-a \cdot d)}$

Where ***a*** is the absorption coefficient, and ***d*** is the sample thickness

Coatings
HEAR and DLC coatings available

Other Properties

Composition	
Component	Percentage
Arsenic	40%
Selenium	60%
Equivalent Glasses	
Schott - IRG26	
Vitron - IG6	

Mechanical Properties	
Density	4.63 g/cm³
Hardness (Vickers)	142 HV
Young's Modulus	19.8 GPa

Thermal Properties	
Max Exposure Temp	140°C
CTE (25-100°C)	22.5 x 10^{-6}/°C
dn/dT @ 10 µm (0-40°C)	30.5 x 10^{-6}/°C

LightPath® TECHNOLOGIES