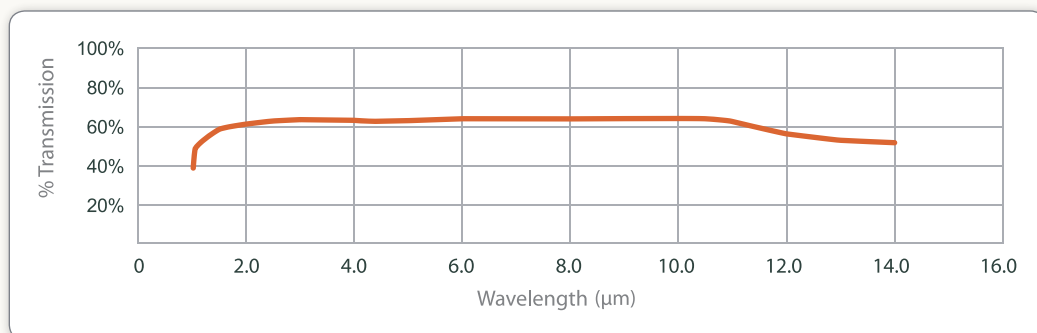


BD-2 Glass Datasheet

BD-2 Uncoated Transmission Curve (5mm thickness)



Optical Properties

| Refractive Indices and Absorption Coefficient | | |
|---|--------|--------------------------------|
| λ (μm) | Index | Absorption (cm ⁻¹) |
| 3 | 2.6266 | 0.01 |
| 4 | 2.6210 | 0.01 |
| 5 | 2.6173 | 0.01 |
| 6 | 2.6142 | 0.01 |
| 7 | 2.6117 | 0.01 |
| 8 | 2.6088 | 0.01 |
| 9 | 2.6055 | 0.01 |
| 10 | 2.6023 | 0.01 |
| 11 | 2.5983 | 0.03 |
| 12 | 2.5942 | 0.13 |
| 13 | 2.5892 | 0.20 |
| 14 | 2.5843 | 0.20 |

| Available Coatings | | |
|--------------------|----------------------|------------------|
| Coating | λ Range (μm) | R _{AVG} |
| IR-1 | 8 - 12 | < 1.0% per side |
| IR-3 | 3 - 5 | < 1.0% per side |
| IR-4 | 1.8 - 3 | < 1.0% per side |

Other Properties

| Composition | |
|----------------|------------|
| Component | Percentage |
| Germanium (Ge) | 28% |
| Antimony (Sb) | 12% |
| Selenium (Se) | 60% |

| Mechanical Properties | |
|-----------------------|------------------------|
| Density | 4.67 g/cm ³ |
| Hardness | 150 knoop |
| Young's Modulus | 22.1 GPa |

| Thermal Properties | |
|--------------------|----------------------------|
| T _g | 278 °C |
| CTE | 14 x 10 ⁻⁶ / °C |
| dn/dT | 91 x 10 ⁻⁶ / °C |

| Equivalent Glasses | |
|---------------------|---------|
| Manufacturer | Glass |
| Amorphous Materials | AMTIR-3 |
| Schott/Vitron | IG5 |

LightPath[®] lenses that have a 390xxx prefix use the BD-2 glass.

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