

Infrared Chalcogenide Glass IG4

Product Information

IG4 is produced from the components Ge-As-Se. The excellent transmission, low thermal change in refractive index and dispersion enable the optical designers to design color corrected optical systems without thermal defocusing. IG4 is optimized for pairing with other IR materials in designs. IG4 has a low dn/dT .

Forms of Supply

IG4 is available as custom cut blanks, generated lens blanks and moldings for customers fabrication for both atmospheric windows 3-5 μm and 8-12 μm .



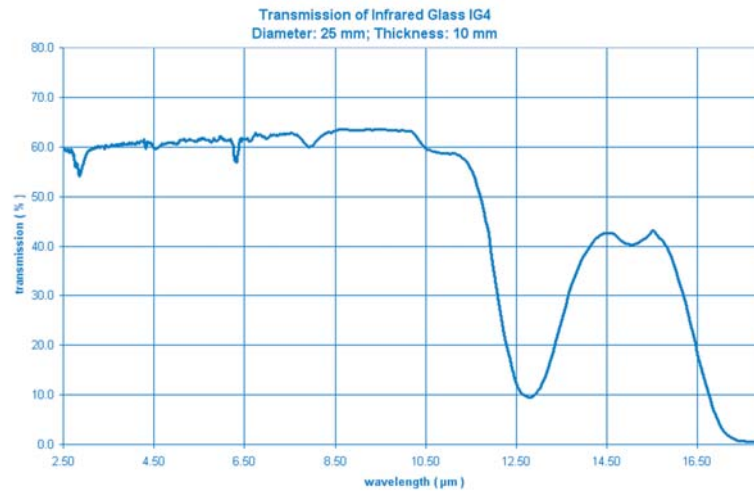
Material Properties

Composition	Ge ₁₀ As ₄₀ Se ₅₀
Density	4.47 g/cm ³
Thermal Expansion	20.4 x 10 ⁻⁶ /K
Specific Heat	0.37 J/gK
Thermal Conductivity	0.18 W/mK
Transition Temperature	225° C
Hardness (Knoop)	1.12 GPa
Rupture Modulus	18 MPa
Young's Modulus	22.5 GPa
Shear Modulus	8.5 GPa
Dispersion	203 (4 μm) 176 (10.6 μm)
Thermal change dn/dT	30 x 10 ⁻⁶ /K (3.4 μm) 36 x 10 ⁻⁶ /K (10.6 μm)

μm	Transmission %	Index
3.0	66	2.6263
4.0	66	2.6210
5.0	66	2.6183
6.0	66	2.6159
7.0	66	2.6139
8.0	66	2.6121
9.0	66	2.6105
10	66	2.6084
11	66	2.6059
12	48	2.6029

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Transmission Curve



For more information please contact:

Advanced Optics
SCHOTT North America, Inc.
400 York Avenue
Duryea, PA 18642
USA

Phone: +1 (0) 570/457-7485
Fax: +1 (0) 570/457-7330
info.optics@us.schott.com
www.us.schott.com/advanced_optics

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