

Infrared Chalcogenide Glass IG3

Product Information

IG3 is produced from the components Ge-As-Se-Te. The excellent transmission, low thermal change in refractive index and dispersion enable the optical designers to design color corrected optical systems without thermal defocusing. IG3 is optimized for pairing with other IR materials in designs.

Forms of Supply

IG3 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 .



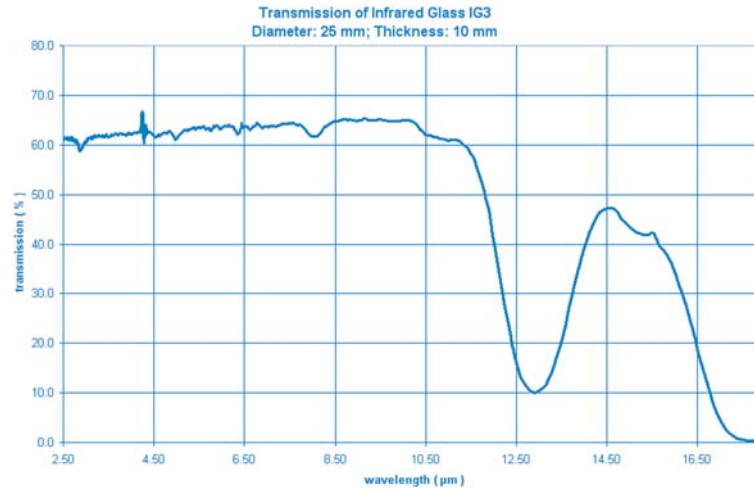
Material Properties

Composition	Ge ₃₀ As ₁₃ Se ₃₂ Te ₂₅
Density	4.84 g/cm ³
Thermal Expansion	13.4 x 10 ⁻⁶ /K
Specific Heat	0.32 J/gK
Thermal Conductivity	0.22 W/mK
Transition Temperature	275° C
Hardness (Knoop)	1.36 GPa
Rupture Modulus	18 MPa
Young's Modulus	22.0 GPa
Shear Modulus	8.9 GPa
Dispersion	164 (10.6 μm)
Thermal change dn/dT	145 x 10 ⁻⁶ /K (10.6 μm)

μm	Transmission %	Index
3.0	65	2.8111
4.0	65	2.8034
5.0	65	2.7993
6.0	65	2.7965
7.0	65	2.7941
8.0	65	2.7919
9.0	65	2.7896
10	65	2.7870
11	65	2.7841
12	45	2.7810

Infrared Chalcogenide Glass IG3

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

SCHOTT
glass made of ideas