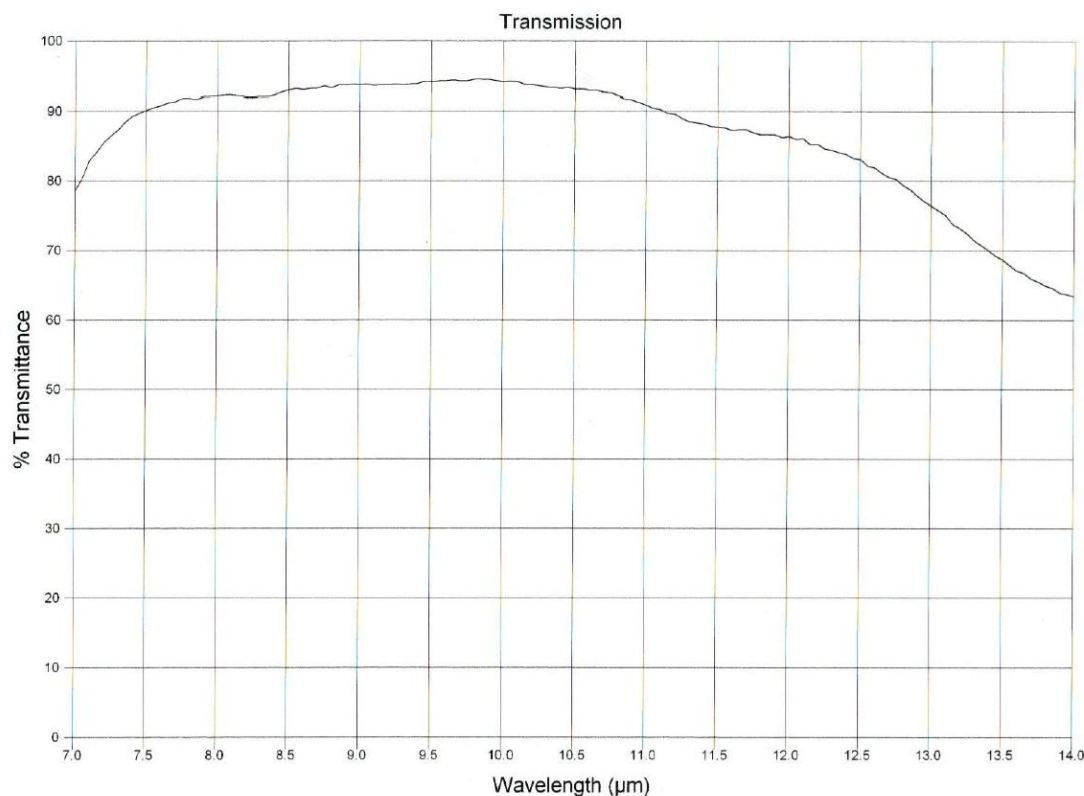


DATA SHEET Chalcogenide Glass ICG06 – AR/DLC Coated 3mm

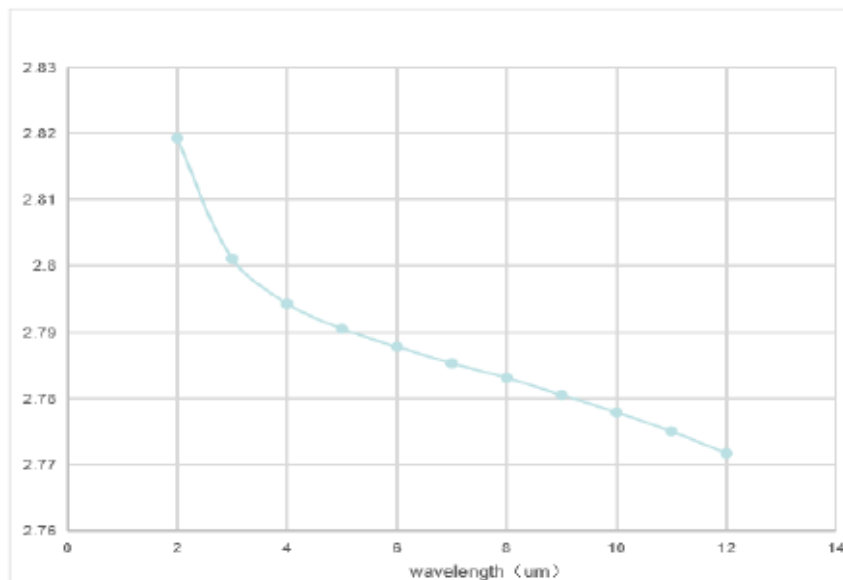
ICG06 chalcogenide glass has a **composition of As₄₀Se₆₀** and is a high-performance solution for the infrared imaging and optoelectronics industries. Known for its excellent infrared band transmittance and low refractive index temperature/dispersion coefficients, ICG06 is an essential material for correcting chromatic aberration and avoiding thermal defocusing in the 2-12 μm range. The material is highly adaptable to various manufacturing processes, including molding and mechanical polishing to create flat, spherical, or aspherical components. Additional coatings include (AR) anti-reflection and (DLC) diamond light coatings to improve transmission and durability to the exposed environment. The product code UQG ICG06 is a popular material due to lower cost, no Germanium and good transmission.

3mmThick



Refractive Index

$\lambda/\mu\text{m}$	n
2	2.8193
3	2.8011
4	2.7943
5	2.7905
6	2.7878
7	2.7853
8	2.7831
9	2.7805
10	2.7779
11	2.775
12	2.7717



Properties

Composition	As ₄₀ Se ₆₀	
Density	4.63	(g/cm ³)
Coefficient of Refractive Index (dn/dT), 10μm	30.9	×10 ⁻⁶ K ⁻¹
Young's Modulus	18.7	GPa
Shear Modulus	7.3	GPa
Poisson's ratio	0.287	
Thermal diffusivity (20°C)	0.148	mm ² /s
Specific heat capacity (20°C)	0.314	J/(g.K)
Thermal conductivity(20°C)	0.215	W/(m.K)
Mean Linear Expansion Coefficient (-60~170 °C)	207.1	10 ⁻⁶ °C ⁻¹
Transition Temperature	188.9	°C
T _s	211	°C