

# Infrared Chalcogenide Glass GH6 Datasheet

**GH6** As<sub>40</sub>Se<sub>60</sub>  
GHOPTICS

**$N_{10}=2.7775$**

Refractive Indices	
$\lambda$ (um)	$n_{\lambda}$
3.0	2.8013
4.0	2.7943
5.0	2.7906
6.0	2.7878
7.0	2.7853
8.0	2.7830
9.0	2.7803
10.0	2.7775
11.0	2.7747
12.0	2.7719

Chemical Properties (grade)	
RC (S)	1
RA (S)	1
DW	1
DA	1

Transmittance	
$\lambda$ (um)	$\tau$ 2mm
2.5	65.57
3.0	65.26
3.5	65.11
4.0	65.41
4.5	65.06
5.0	65.54
5.5	65.74
6.0	65.90
6.5	65.05
7.0	65.93
7.5	66.19
8.0	66.28
8.5	66.64
9.0	66.62
9.5	66.91
10.0	66.96
10.5	66.93
11.0	67.01
11.5	66.90
12.0	66.74
12.5	65.99
13.0	63.82
13.5	61.13
14.0	59.61
14.5	59.40
15.0	60.08

Thermal Properties (grade)	
T <sub>g</sub> (°C)	183
T <sub>s</sub> (°C)	217
$\alpha_{20/120^{\circ}\text{C}}$ (10 <sup>-7</sup> /K)	209

Constants of dn/dt(10μm)	
-40°C ~ +50°C	30.1×10 <sup>-6</sup> /K
-40°C ~ +80°C	31.3×10 <sup>-6</sup> /K

Constants of Dispersion Formula	
A	2.78773946E+00
B	1.24800224E-01
C	2.98647971E-02
D	-7.46033249E-05
E	-6.53466490E-07
F	2.54125398E-09

Mechanical Properties	
HK (10 <sup>7</sup> Pa)	113
$\rho$ (g/cm <sup>3</sup> )	4.63

