

# Infrared Chalcogenide Glass IG2

Custom sizes and specifications are available

**COMPOSITION**  $Ge_{22}As_{12}Se_{55}$

**OPTICAL**

Transmission Range, microns 1-12  
 Absorbance  $cm^{-1}$   
 at 2 microns 0.028755  $cm^{-1}$   
 at 4 microns 0.024532  $cm^{-1}$   
 at 8 microns 0.023686  $cm^{-1}$

**THERMAL**

Thermal Expansion  $12.1 \times 10^{-6}/K$   
 Specific Heat 0.33 J/gK  
 Thermal Conductivity 0.24 W/mK  
 Transition Temperature 368°C  
 Thermal change  $dn/dT$   $60 \times 10^{-6}/K$  (10.6 $\mu m$ )

**MECHANICAL**

Density 4.41 g/cm<sup>3</sup>  
 Hardness (Knoop) 1.41 GPa  
 Rupture Modulus 19 MPa  
 Young's Modulus 21.5 GPa  
 Shear Modulus 8.9 GPa  
 Dispersion 108 (10.6 $\mu m$ )

IG-2 is a registered trademark of Vitron.

**IR Refractive Index of IG-2**

$\mu m$	Refractive Index
1.00	2.5969
1.50	2.5462
2.00	2.5298
3.00	2.5180
4.00	2.5133
5.00	2.5104
6.00	2.5078
7.00	2.5054
8.00	2.5026
9.00	2.4999
10.00	2.4968
11.00	2.4931
12.00	2.4891

