

# AMTIR-1

Custom sizes and specifications are available

## COMPOSITION

Ge<sub>33</sub>As<sub>12</sub>Se<sub>55</sub> Glass

## OPTICAL

Transmission Range, microns	0.8–13
Absorbance $\mu (\lambda)$ , cm <sup>-1</sup>	
at 2 microns	2.531
at 4 microns	2.515
at 8 microns	2.503

## THERMAL

Conductivity	6 cal / cm sec°K x 10 <sup>-4</sup>
Specific Heat	0.07 cal / gm°K
Upper Use Temperature	300°C
Resistivity	2 x 10 <sup>12</sup> Ωcm @ 100 Hz
Glass Transition Temperature	362°C
Annealing Temperature	370°C

## MECHANICAL

Density, g/cm <sup>3</sup>	4.4
Knoop Hardness	170
Rupture Modulus, psi	2700
Young Modules (E), psi	3.2 x 10.6
Poisson Ratio	0.27

AMTIR-1 is a registered trademark of Amorphous Materials

## Refr. Index n vs. Wavelength $\lambda$

WAVELENGTH, MICRONS	REFRACTIVE INDEX
1.0	2.605
1.5	2.546
2.0	2.531
2.4	2.525
3.0	2.518
4.0	2.514
5.0	2.511
6.0	2.509
7.0	2.506
8.0	2.503
9.0	2.500
10.0	2.497
11.0	2.494
12.0	2.490
13.0	2.486
14.0	2.482

## Transmittance $\tau (\lambda)$ vs. Wavelength $\lambda$

