



### LOW VOLUME RUNS

IRRADIANCE™ CLASSIC Glass Product compositions are equivalent to various commercially available compositions, and we offer them in low to medium volumes.

### CUSTOM FORMS

These products are available in various diameters up to 100mm, rods or disks. The bulk glass may be processed into powder or spheres. The glass may be fabricated into cut or polished blanks or near-net preforms.

### APPLICATIONS

Our custom sizes and volumes of the industry standard compositions are available for R&D projects, fiber and molding pre-

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## IRRADIANCE™ CLASSIC Glass Products

### Industry standard chalcogenide glass compositions

## Material Property Data Sheet

These glasses are used in a wide variety of optical systems that require excellent infrared transmission and controlled thermal property specifications. IRradiance Glass offers these products to clients who require industry-standard compositions for their applications.

### IRRADIANCE™ CLASSIC GLASS PRODUCTS

CLASSIC-1 –  $As_{40}S_{60}$  (equivalent to AMTIR-6)

CLASSIC-2 –  $Ge_{33}As_{12}Se_{55}$  (equivalent to IG2, IRG22, AMTIR-1)

CLASSIC-3 –  $Ge_{30}As_{13}Se_{32}Te_{25}$  (equivalent to IG3, IRG23)

CLASSIC-4 –  $Ge_{10}As_{40}Se_{50}$  (equivalent to IG4, IRG24)

CLASSIC-5 –  $Ge_{28}Sb_{12}Se_{60}$  (equivalent to IG5, IRG25, BD-2, AMTIR-3)

CLASSIC-6 –  $As_{40}Se_{60}$  (equivalent to IG6, IRG26)

### IRRADIANCE™ CLASSIC Products\*

	CLASSIC 1	CLASSIC 2	CLASSIC 3	CLASSIC 4	CLASSIC 5	CLASSIC 6
Density (g/cm <sup>3</sup> )	3.17	4.41	4.84	4.47	4.66	4.63
Thermal expansion (x10 <sup>-6</sup> /K)	24.2	13.4	14.4	20.8	16.1	21.6
Glass Transition temperature (°C)	204	375	285	230	285	188
dn/dT (λ = 10 μm) (x10 <sup>-6</sup> /K)	~0	57.5	121	17.5	55.5	19.5
Refractive index (λ = 10 μm)	2.3782	2.4967	2.7870	2.6090	2.6032	2.7762

\*property data is based on industry-standard values and may differ after custom processing.

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