

IRG207	Ge10Se50As40
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$n_{10.6}=2.6075$	$\nu_{10.6}=154.57$	$n_{8000}-n_{12500}=0.01040$
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Refractive Indices		
n	2000	2.6418
n	3000	2.6271
n	4000	2.6219
n	5000	2.6190
n	6000	2.6168
n	7000	2.6149
n	8000	2.6130
n	9000	2.6110
n	10000	2.6089
n	11000	2.6066
n	12000	2.6040
n	12500	2.6026
n	13000	2.6011
n	14000	2.5976

Constants of Dispersion Formula	
A	2.6183123E+00
B	8.1664287E-02
C	5.3106591E-02
D	-1.1005200E-04
E	1.4671605E-07
F	-6.8842703E-10

Other Properties	
$\rho\text{ (g/cm}^3\text{)}$	4.49
ϵ_r	

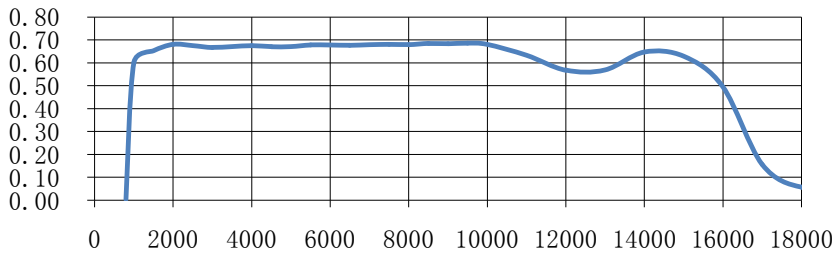
Chemical Properties (grade)	
RC(S)	1
RA(S)	1
Dw	1
DA	1

Thermal Properties	
Tg(℃)	220
Ts(℃)	277
$\alpha_{-40/55^{\circ}\text{C}}(10^{-7}/\text{K})$	
$\alpha_{20/120^{\circ}\text{C}}(10^{-7}/\text{K})$	200
Cp(J/gK)	0.37

Mechanical Properties	
$H_K(20^{\circ}\text{C, kgf/mm}^2)$	126
E(GPa)	
G(GPa)	
μ	

Temperature Coefficients of Refractive Index		
Temperature (℃)	$\lambda(\text{nm})$	dn/dt relative (10 ⁻⁶ / ℃)
-40~80	1500	28.8
-40~80	2000	22.4
-40~80	3000	18.2
-40~80	5000~14000	17.4

Transmittance	
$\lambda(\text{nm})$	$\tau(2\text{mm})$
20000	0.015
19000	0.074
18000	0.188
17000	0.371
16000	0.618
15000	0.644
14000	0.635
13000	0.589
12000	0.598
11000	0.652
10000	0.682
9500	0.683
9000	0.678
8500	0.679
8000	0.674
7500	0.674
7000	0.672
6500	0.668
6000	0.667
5500	0.667
5000	0.663
4500	0.660
4000	0.660
3500	0.656
3000	0.654
2500	0.650
2000	0.651
1500	0.653
1000	0.612
800	0.399
600	
400	
200	



Infrared Transmittance (2 mm)