

# Glass D-ZK3 Datasheet (After Molding)

**D-ZK3M**  
CDGM

**$N_d=1.5864$**   
 **$V_d=60.714$**

Refractive Indices	
$\lambda$ (nm)	$n_\lambda$
365.0	1.6098
403.9	1.6027
488.3	1.5929
546.7	1.5887
585.7	1.5865
631.1	1.5844
657.1	1.5834
709.0	1.5817
851.8	1.5782
1014.0	1.5753

Chemical Properties (grade)	
RC (S)	2
RA (S)	3
DW	3
DA	6

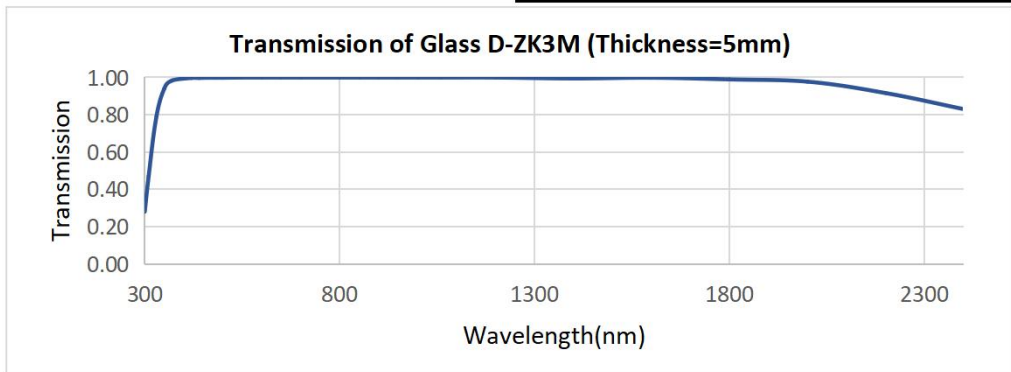
Transmittance	
$\lambda$ (nm)	$\tau$ 5mm
2400	0.830
2200	0.916
2000	0.977
1800	0.989
1600	0.998
1400	0.994
1200	0.999
1060	0.999
1000	0.999
950	0.999
900	0.999
850	0.999
800	0.999
700	0.999
650	0.999
600	0.999
550	0.999
500	0.998
480	0.998
460	0.998
440	0.997
420	0.997
370	0.983
350	0.939
330	0.790
310	0.470
300	0.280

Thermal Properties (grade)	
T <sub>g</sub> (°C)	511
T <sub>s</sub> (°C)	546
$\alpha_{100/300^\circ\text{C}}$ (10 <sup>-7</sup> /K)	93

Constants of Dispersion Formula	
A0	2.48184500E+000
A1	-1.21325400E-002
A2	1.17943900E-002
A3	8.04573000E-004
A4	-9.00581400E-005
A5	4.89864100E-006

Constants of dn/dt	
D0	1.70E-06
D1	1.39E-08
D2	-2.29E-11
E0	5.55E-07
E1	2.35E-10
$\lambda\text{TK}(\mu\text{m})$	0.125

Mechanical Properties	
HK (10 <sup>7</sup> Pa)	628
$\rho$ (g/cm <sup>3</sup> )	2.83



## D-ZLaF52LaM

CDGM

$N_d=1.8059$

$V_d=40.888$

Refractive Indices	
$\lambda$ (nm)	$n_\lambda$
365.0	1.8573
403.9	1.8407
488.3	1.8193
546.7	1.8105
585.7	1.8061
631.1	1.8019
657.1	1.8000
709.0	1.7966
851.8	1.7901
1014.0	1.7853

Chemical Properties (grade)	
RC (S)	1
RA (S)	3
DW	1
DA	6

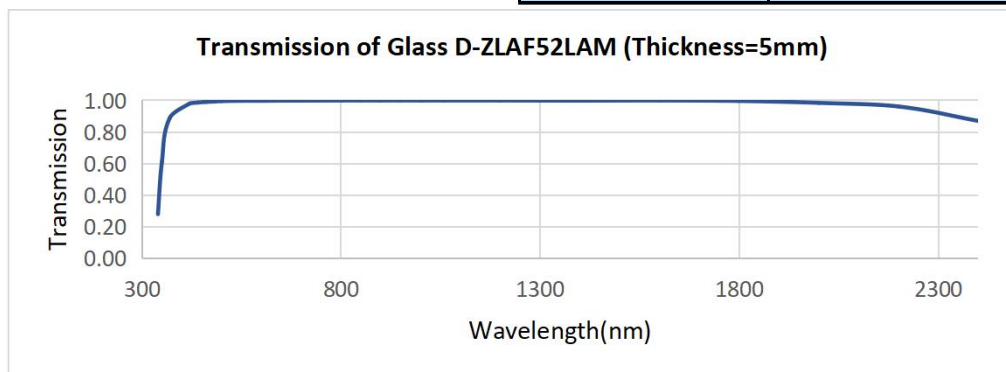
Transmittance	
$\lambda$ (nm)	$\tau$ 5mm
2400	0.870
2200	0.961
2000	0.984
1800	0.996
1600	0.999
1400	0.998
1200	0.999
1060	0.999
1000	0.999
950	0.999
900	0.999
850	0.999
800	0.999
700	0.998
650	0.998
600	0.997
550	0.997
500	0.995
480	0.992
460	0.990
440	0.986
420	0.980
370	0.890
350	0.610
340	0.280
310	
300	

Thermal Properties (grade)	
$T_g$ (°C)	646
$T_s$ (°C)	582
$\alpha_{100/300^\circ\text{C}}$ ( $10^{-7}/\text{K}$ )	83

Constants of Dispersion Formula	
A0	3.17170810E+000
A1	-1.37084480E-002
A2	2.96290260E-002
A3	1.11500950E-003
A4	-5.55766060E-005
A5	5.69411220E-006

Constants of dn/dt	
D0	5.35E-06
D1	1.85E-08
D2	-7.87E-11
E0	7.15E-07
E1	1.26E-10
$\lambda\text{TK}(\mu\text{m})$	0.231

Mechanical Properties	
HK ( $10^7\text{Pa}$ )	662
$\rho$ ( $\text{g}/\text{cm}^3$ )	4.56



## Glass D-LaK6 Datasheet (After Molding)

**D-LaK6M**

CDGM

**$N_d=1.6898$**

**$V_d=52.67$**

Refractive Indices	
$\lambda$ (nm)	$n_\lambda$
365.0	1.7223
403.9	1.7122
488.3	1.6987
546.7	1.6929
585.7	1.6900
631.1	1.6872
657.1	1.6858
709.0	1.6835
851.8	1.6790
1014.0	1.6754

Constants of Dispersion Formula	
A0	2.80245586E+000
A1	-1.30878846E-002
A2	1.74134467E-002
A3	1.18351823E-003
A4	-1.36975608E-004
A5	8.19255146E-006

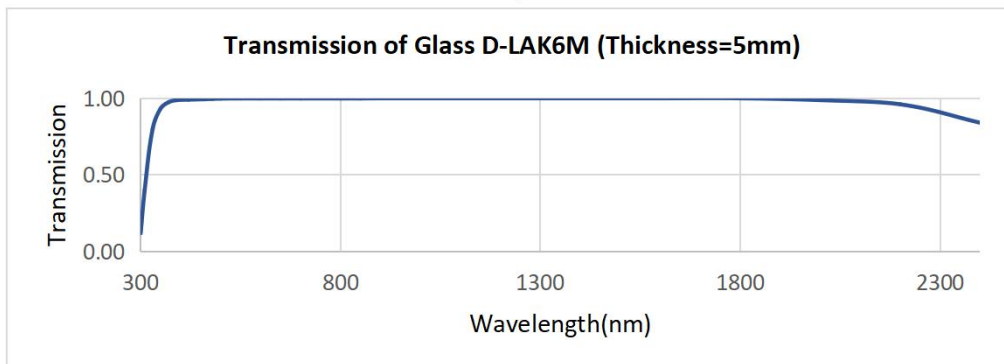
Chemical Properties (grade)	
RC (S)	1
RA (S)	3
DW	1
DA	6

Thermal Properties (grade)	
T <sub>g</sub> (°C)	522
T <sub>s</sub> (°C)	560
$\alpha_{100/300^\circ\text{C}}$ (10 <sup>-7</sup> /K)	95

Constants of dn/dt	
D0	2.98E-06
D1	1.62E-08
D2	-2.76E-10
E0	6.03E-07
E1	7.67E-10
$\lambda\text{TK}(\mu\text{m})$	0.156

Mechanical Properties	
HK (10 <sup>7</sup> Pa)	665
$\rho$ (g/cm <sup>3</sup> )	3.50

Transmittance	
$\lambda$ (nm)	$\tau$ 5mm
2400	0.840
2200	0.960
2000	0.987
1800	0.999
1600	0.999
1400	0.999
1200	0.999
1060	0.999
1000	0.999
950	0.999
900	0.999
850	0.998
800	0.998
700	0.998
650	0.998
600	0.998
550	0.998
500	0.997
480	0.995
460	0.993
420	0.990
390	0.987
370	0.974
350	0.933
330	0.800
310.0	0.400
300.0	0.120



**GH2**  $\text{Ge}_{28}\text{Se}_{60}\text{Sb}_{12}$

GHOPTICS

$N_{10} = 2.6044$

Refractive Indices	
$\lambda$ ( $\mu\text{m}$ )	$n_{\lambda}$
3.0	2.6289
4.0	2.6231
5.0	2.6197
6.0	2.6165
7.0	2.6136
8.0	2.6109
9.0	2.6075
10.0	2.6044
11.0	2.6003
12.0	2.5962

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

Transmittance	
$\lambda$ ( $\mu\text{m}$ )	$\tau$ 2mm
2.5	67.52
3.0	67.44
3.5	67.66
4.0	68.00
4.5	67.66
5.0	67.74
5.5	68.33
6.0	68.16
6.5	67.73
7.0	68.34
7.5	68.59
8.0	68.43
8.5	68.84
9.0	68.92
9.5	68.92
10.0	68.93
10.5	68.90
11.0	68.57
11.5	67.18
12.0	63.31
12.5	56.40
13.0	56.51
13.5	61.88
14.0	65.23
14.5	65.39
15.0	63.61

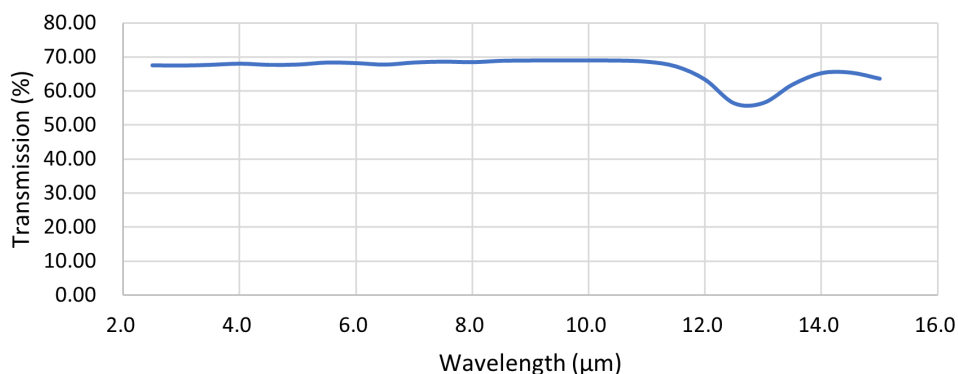
Thermal Properties (grade)	
$T_g$ ( $^{\circ}\text{C}$ )	280
$T_s$ ( $^{\circ}\text{C}$ )	315
$\alpha_{20/120^{\circ}\text{C}}$ ( $10^{-7}/\text{K}$ )	142

Constants of Dispersion Formula	
A	2.62070808E-00
B	8.36150956E-02
C	4.38492851E-02
D	-1.89000124E-04
E	2.84873365E-07
F	-1.27888822E-09

Constants of $dn/dt(10\mu\text{m})$	
-40 $^{\circ}\text{C}$ ~ +50 $^{\circ}\text{C}$	$66.1 \times 10^{-6}/\text{K}$
-40 $^{\circ}\text{C}$ ~ +80 $^{\circ}\text{C}$	$70.4 \times 10^{-6}/\text{K}$

Mechanical Properties	
HK ( $10^7\text{Pa}$ )	128
$\rho$ ( $\text{g}/\text{cm}^3$ )	4.68

Transmission of Glass GH2 (Thickness = 2 mm)



# Infrared Chalcogenide Glass GH6 Datasheet

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

**N<sub>10</sub> = 2.7775**

Refractive Indices	
λ (μm)	n <sub>λ</sub>
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	
λ (μm)	τ 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
α <sub>20/120°C</sub> (10 <sup>-7</sup> /K)	209

Constants of dn/dt (10 μm)	
-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
ρ (g/cm <sup>3</sup> )	4.63

