# H-ZBaF3 657511

| | | |
|---|---|---|
| $n_d$ = 1.65691 | $\upsilon_d$ = 51.12 | $n_F - n_C$ = 0.012850 |
| $n_e$ = 1.65996 | $\upsilon_e$ = 50.88 | $n_{F'} - n_{C'}$ = 0.012970 |

| Refractive Indices | | |
|---|---|---|
| | λ(nm) | $n_\lambda$ |
| $n_{2325}$ | 2325.42 | 1.62663 |
| $n_{1970}$ | 1970.09 | 1.63127 |
| $n_{1530}$ | 1529.58 | 1.63649 |
| $n_{1129}$ | 1128.64 | 1.64148 |
| $n_t$ | 1013.98 | 1.64326 |
| $n_s$ | 852.11 | 1.64648 |
| $n_{A'}$ | 768.19 | 1.64877 |
| $n_r$ | 706.52 | 1.65091 |
| $n_C$ | 656.27 | 1.65306 |
| $n_{C'}$ | 643.85 | 1.65368 |
| $n_{He-Ne}$ | 632.80 | 1.65424 |
| $n_D$ | 589.29 | 1.65680 |
| $n_d$ | 587.56 | 1.65691 |
| $n_e$ | 546.07 | 1.65996 |
| $n_F$ | 486.13 | 1.66591 |
| $n_{F'}$ | 479.99 | 1.66665 |
| $n_g$ | 435.84 | 1.67306 |
| $n_h$ | 404.66 | 1.67907 |
| $n_i$ | 365.01 | 1.68947 |

| Constants of Dispersion Formula | |
|---|---|
| $A_0$ | 2.69121166E+00 |
| $A_1$ | -9.00413519E-03 |
| $A_2$ | 1.83609733E-02 |
| $A_3$ | 5.31180896E-04 |
| $A_4$ | -2.10926709E-05 |
| $A_5$ | 1.72686254E-06 |

| Relative Partial Dispersions | | | |
|---|---|---|---|
| $P_{d,C}$ | 0.2996 | $P'_{d,c'}$ | 0.2490 |
| $P_{e,d}$ | 0.2374 | $P'_{e,d}$ | 0.2352 |
| $P_{g,F}$ | 0.5564 | $P'_{g,F'}$ | 0.4942 |

| Chemical Properties (grade) | |
|---|---|
| RC(S) | 1 |
| RA(S) | 3 |
| $D_W$ | 1 |
| $D_A$ | 3 |
| $R_{OH}$(S) | 2 |
| RP(S) | 2 |
| | |

| Thermal Properties | |
|---|---|
| Tg(℃) | 637 |
| Ts(℃) | 689 |
| $T_{10}^{14.5}$(℃) | 590 |
| $T_{10}^{13}$(℃) | 631 |
| $\alpha_{-50/80℃}$($10^{-7}$/K) | 74 |
| $\alpha_{100/300℃}$($10^{-7}$/K) | 88 |
| | |

| Mechanical Properties | |
|---|---|
| HK($10^7$Pa) | 520 |
| $F_A$ | 139 |
| E($10^7$Pa) | 8859 |
| G($10^7$Pa) | 3461 |
| μ | 0.280 |
| B(nm/cm/$10^5$Pa) | 2.340 |

| Density | |
|---|---|
| $\rho$ (g/cm$^3$) | 3.89 |

| Deviation of Relative Partial Dispersions | |
|---|---|
| $\triangle P_{F,e}$ | 0.0011 |
| $\triangle P_{g,F}$ | -0.0023 |
| $\triangle P_{C,t}$ | -0.0252 |
| $\triangle P_{C,s}$ | -0.0110 |

| Internal Transmittance | | |
|---|---|---|
| λ(nm) | τ5mm | τ10mm |
| 2400 | 0.938 | 0.880 |
| 2200 | 0.973 | 0.947 |
| 2000 | 0.990 | 0.980 |
| 1800 | 0.999 | 0.998 |
| 1600 | 0.999 | 0.998 |
| 1400 | 0.999 | 0.998 |
| 1200 | 0.999 | 0.998 |
| 1060 | 0.999 | 0.998 |
| 1000 | 0.999 | 0.998 |
| 900 | 0.999 | 0.998 |
| 850 | 0.999 | 0.998 |
| 800 | 0.999 | 0.998 |
| 750 | 0.999 | 0.998 |
| 700 | 0.999 | 0.998 |
| 650 | 0.999 | 0.998 |
| 600 | 0.999 | 0.998 |
| 550 | 0.999 | 0.998 |
| 500 | 0.999 | 0.998 |
| 480 | 0.999 | 0.998 |
| 460 | 0.999 | 0.998 |
| 440 | 0.997 | 0.994 |
| 420 | 0.994 | 0.988 |
| 400 | 0.991 | 0.981 |
| 390 | 0.987 | 0.968 |
| 380 | 0.976 | 0.945 |
| 370 | 0.952 | 0.899 |
| 360 | 0.894 | 0.798 |
| 350 | 0.782 | 0.611 |
| 340 | 0.555 | 0.308 |
| 330 | 0.217 | 0.050 |
| 320 | | |
| 310 | | |
| 300 | | |
| 290 | | |
| 280 | | |

| Range of Temperature (℃) | Temperature Coefficients of Refractive Index dn/dt relative ($10^{-6}$ / ℃) | | | | | | |
|---|---|---|---|---|---|---|---|
| | t | C' | He-Ne | D | e | F' | g |
| -40 ~ -20 | 2.3 | 2.8 | 2.8 | 3.0 | 3.2 | 3.7 | 4.2 |
| -20 ~ 0 | 2.2 | 2.8 | 2.8 | 3.0 | 3.2 | 3.7 | 4.2 |
| 0 ~ 20 | 2.2 | 2.8 | 2.8 | 3.0 | 3.2 | 3.7 | 4.3 |
| 20 ~ 40 | 2.2 | 2.8 | 2.8 | 3.0 | 3.3 | 3.8 | 4.3 |
| 40 ~ 60 | 2.3 | 2.9 | 2.9 | 3.1 | 3.4 | 3.9 | 4.4 |
| 60 ~ 80 | 2.4 | 3.1 | 3.1 | 3.3 | 3.5 | 4.1 | 4.7 |

| Coloration Code | |
|---|---|
| $\lambda_{80}(\lambda_{70})/\lambda_5$ | 375/335 |

| Coloration of Internal Transmittance | |
|---|---|
| $\lambda\tau_{80}/\lambda\tau_5$ | 361/330 |
| | |