

BK7G18 520636.252

| | | |
|-----------------|---------------|------------------------------|
| $n_d = 1.51975$ | $v_d = 63.58$ | $n_F - n_C = 0.008174$ |
| $n_e = 1.52170$ | $v_e = 63.36$ | $n_{F'} - n_{C'} = 0.008233$ |

| Refractive Indices | | |
|--------------------|----------------|---------|
| | λ [nm] | |
| $n_{2325.4}$ | 2325.4 | 1.49203 |
| $n_{1970.1}$ | 1970.1 | 1.49777 |
| $n_{1529.6}$ | 1529.6 | 1.50373 |
| $n_{1060.0}$ | 1060.0 | 1.50953 |
| n_t | 1014.0 | 1.51015 |
| n_s | 852.1 | 1.51267 |
| n_r | 706.5 | 1.51579 |
| n_C | 656.3 | 1.51724 |
| $n_{C'}$ | 643.8 | 1.51764 |
| $n_{632.8}$ | 632.8 | 1.51802 |
| n_D | 589.3 | 1.51968 |
| n_d | 587.6 | 1.51975 |
| n_e | 546.1 | 1.52170 |
| n_F | 486.1 | 1.52541 |
| $n_{F'}$ | 480.0 | 1.52587 |
| n_g | 435.8 | 1.52981 |
| n_h | 404.7 | 1.53345 |
| n_i | 365.0 | 1.53970 |
| $n_{334.1}$ | 334.1 | |
| $n_{312.6}$ | 312.6 | |
| $n_{296.7}$ | 296.7 | |
| $n_{280.4}$ | 280.4 | |
| $n_{248.3}$ | 248.3 | |

| Internal Transmittance τ_i | | |
|---------------------------------|-----------------|-----------------|
| λ [nm] | τ_i (10mm) | τ_i (25mm) |
| 2500 | 0.634 | 0.320 |
| 2325 | 0.782 | 0.540 |
| 1970 | 0.933 | 0.841 |
| 1530 | 0.992 | 0.979 |
| 1060 | 0.999 | 0.998 |
| 700 | 0.997 | 0.993 |
| 660 | 0.995 | 0.988 |
| 620 | 0.994 | 0.984 |
| 580 | 0.992 | 0.979 |
| 546 | 0.989 | 0.973 |
| 500 | 0.982 | 0.957 |
| 460 | 0.970 | 0.927 |
| 436 | 0.947 | 0.873 |
| 420 | 0.905 | 0.780 |
| 405 | 0.815 | 0.600 |
| 400 | 0.764 | 0.510 |
| 390 | 0.601 | 0.280 |
| 380 | 0.360 | 0.080 |
| 370 | 0.080 | |
| 365 | 0.020 | |
| 350 | | |
| 334 | | |
| 320 | | |
| 310 | | |
| 300 | | |
| 290 | | |
| 280 | | |
| 270 | | |
| 260 | | |
| 250 | | |

| Relative Partial Dispersion | |
|-----------------------------|--------|
| $P_{s,t}$ | 0.3077 |
| $P_{C,s}$ | 0.5591 |
| $P_{d,C}$ | 0.3071 |
| $P_{e,d}$ | 0.2385 |
| $P_{g,F}$ | 0.5376 |
| $P_{i,h}$ | 0.7640 |
| | |
| $P'_{s,t}$ | 0.3055 |
| $P'_{C',s}$ | 0.6040 |
| $P'_{d,C'}$ | 0.2561 |
| $P'_{e,d}$ | 0.2368 |
| $P'_{g,F'}$ | 0.4777 |
| $P'_{i,h}$ | 0.7585 |

| Deviation of Relative Partial Dispersions ΔP from the "Normal Line" | |
|---|---------|
| $\Delta P_{C,t}$ | 0.0203 |
| $\Delta P_{C,s}$ | 0.0080 |
| $\Delta P_{F,e}$ | -0.0006 |
| $\Delta P_{g,F}$ | 0.0007 |
| $\Delta P_{i,g}$ | 0.0189 |

| Constants of Dispersion Formula | |
|---------------------------------|---------------|
| B_1 | 1.26538542 |
| B_2 | 0.0144191073 |
| B_3 | 1.00323028 |
| C_1 | 0.00813104078 |
| C_2 | 0.0543303226 |
| C_3 | 102.821166 |

| Constants of Dispersion dn/dT | |
|---------------------------------|------------------------|
| D_0 | $1.52 \cdot 10^{-6}$ |
| D_1 | $1.37 \cdot 10^{-8}$ |
| D_2 | $-1.26 \cdot 10^{-11}$ |
| E_0 | $4.36 \cdot 10^{-7}$ |
| E_1 | $4.17 \cdot 10^{-10}$ |
| $\lambda_{TK} [\mu m]$ | 0.194 |

| Color Code | |
|---------------------------------|-------|
| λ_{80}/λ_5 | 41/37 |
| (* = λ_{70}/λ_5) | |

| Remarks | |
|---------------------------|--|
| radiation resistant glass | |

| Other Properties | |
|---|-------|
| $\alpha_{-30/+70^\circ C} [10^{-6}/K]$ | 7.0 |
| $\alpha_{+20/+300^\circ C} [10^{-6}/K]$ | 8.2 |
| $T_g [^\circ C]$ | 585 |
| $T_{10}^{13.0} [^\circ C]$ | 570 |
| $T_{10}^{7.6} [^\circ C]$ | 722 |
| $c_p [J/(g \cdot K)]$ | 0.820 |
| $\lambda [W/(m \cdot K)]$ | 1.190 |
| | |
| $\rho [g/cm^3]$ | 2.52 |
| $E [10^3 N/mm^2]$ | 82 |
| μ | 0.205 |
| $K [10^{-6} mm^2/N]$ | 2.77 |
| $HK_{0.1/20}$ | 580 |
| HG | |
| | |
| | |
| | |
| | |
| CR | |
| FR | 0 |
| SR | 1 |
| AR | 2 |
| PR | 0 |

| Temperature Coefficients of Refractive Index | | | | | | |
|--|---------------------------------------|-----|-----|---------------------------------------|-----|-----|
| [°C] | $\Delta n_{rel}/\Delta T [10^{-6}/K]$ | | | $\Delta n_{abs}/\Delta T [10^{-6}/K]$ | | |
| | 1060.0 | e | g | 1060.0 | e | g |
| -40/ -20 | 2.2 | 2.7 | 3.3 | 0.2 | 0.7 | 1.2 |
| +20/ +40 | 2.2 | 2.8 | 3.4 | 0.9 | 1.5 | 2.1 |
| +60/ +80 | 2.4 | 3.0 | 3.7 | 1.4 | 2.0 | 2.6 |