

LF5
581409.322

| | | |
|-----------------|---------------|------------------------------|
| $n_d = 1.58144$ | $v_d = 40.85$ | $n_F - n_C = 0.014233$ |
| $n_e = 1.58482$ | $v_e = 40.57$ | $n_{F'} - n_{C'} = 0.014413$ |

| Refractive Indices | | |
|--------------------|----------------|---------|
| | λ [nm] | |
| $n_{2325.4}$ | 2325.4 | 1.54966 |
| $n_{1970.1}$ | 1970.1 | 1.55445 |
| $n_{1529.6}$ | 1529.6 | 1.55975 |
| $n_{1060.0}$ | 1060.0 | 1.56594 |
| n_t | 1014.0 | 1.56672 |
| n_s | 852.1 | 1.57014 |
| n_r | 706.5 | 1.57489 |
| n_C | 656.3 | 1.57723 |
| $n_{C'}$ | 643.8 | 1.57789 |
| $n_{632.8}$ | 632.8 | 1.57851 |
| n_D | 589.3 | 1.58132 |
| n_d | 587.6 | 1.58144 |
| n_e | 546.1 | 1.58482 |
| n_F | 486.1 | 1.59146 |
| $n_{F'}$ | 480.0 | 1.59231 |
| n_g | 435.8 | 1.59964 |
| n_h | 404.7 | 1.60668 |
| n_i | 365.0 | 1.61926 |
| $n_{334.1}$ | 334.1 | 1.63380 |
| $n_{312.6}$ | 312.6 | |
| $n_{296.7}$ | 296.7 | |
| $n_{280.4}$ | 280.4 | |
| $n_{248.3}$ | 248.3 | |

| Constants of Dispersion Formula | |
|---------------------------------|---------------|
| B_1 | 1.28035628 |
| B_2 | 0.163505973 |
| B_3 | 0.893930112 |
| C_1 | 0.00929854416 |
| C_2 | 0.0449135769 |
| C_3 | 110.493685 |

| Constants of Dispersion dn/dT | |
|-------------------------------|------------------------|
| D_0 | $-2.27 \cdot 10^{-6}$ |
| D_1 | $9.71 \cdot 10^{-9}$ |
| D_2 | $-2.83 \cdot 10^{-11}$ |
| E_0 | $8.36 \cdot 10^{-7}$ |
| E_1 | $9.95 \cdot 10^{-10}$ |
| $\lambda_{TK} [\mu m]$ | 0.228 |

| 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 | 0.8 | 1.9 | 3.1 | -1.3 | -0.2 | 0.9 |
| +20/ +40 | 0.8 | 2.0 | 3.4 | -0.6 | 0.7 | 2.0 |
| +60/ +80 | 0.8 | 2.2 | 3.7 | -0.3 | 1.1 | 2.6 |

| Internal Transmittance τ_i | | |
|---------------------------------|-----------------|-----------------|
| λ [nm] | τ_i (10mm) | τ_i (25mm) |
| 2500 | | |
| 2325 | 0.847 | 0.660 |
| 1970 | 0.946 | 0.870 |
| 1530 | 0.997 | 0.992 |
| 1060 | 0.999 | 0.998 |
| 700 | 0.999 | 0.998 |
| 660 | 0.999 | 0.998 |
| 620 | 0.999 | 0.998 |
| 580 | 0.999 | 0.997 |
| 546 | 0.999 | 0.997 |
| 500 | 0.998 | 0.996 |
| 460 | 0.998 | 0.995 |
| 436 | 0.998 | 0.994 |
| 420 | 0.997 | 0.993 |
| 405 | 0.997 | 0.992 |
| 400 | 0.997 | 0.992 |
| 390 | 0.994 | 0.984 |
| 380 | 0.989 | 0.973 |
| 370 | 0.984 | 0.961 |
| 365 | 0.981 | 0.954 |
| 350 | 0.950 | 0.880 |
| 334 | 0.799 | 0.570 |
| 320 | 0.320 | 0.040 |
| 310 | 0.040 | |
| 300 | | |
| 290 | | |
| 280 | | |
| 270 | | |
| 260 | | |
| 250 | | |

| Color Code | |
|-----------------------------------|-------|
| λ_{80} / λ_5 | 34/31 |
| (* = λ_{70} / λ_5) | |

| Remarks |
|----------------------------|
| lead containing glass type |

| Relative Partial Dispersion | |
|-----------------------------|--------|
| $P_{s,t}$ | 0.2401 |
| $P_{C,s}$ | 0.4981 |
| $P_{d,C}$ | 0.2959 |
| $P_{e,d}$ | 0.2373 |
| $P_{g,F}$ | 0.5748 |
| $P_{i,h}$ | 0.8836 |
| $P'_{s,t}$ | 0.2371 |
| $P'_{C',s}$ | 0.5378 |
| $P'_{d,C'}$ | 0.2462 |
| $P'_{e,d}$ | 0.2343 |
| $P'_{g,F'}$ | 0.5091 |
| $P'_{i,h}$ | 0.8726 |

| Deviation of Relative Partial Dispersions ΔP from the "Normal Line" | |
|---|---------|
| $\Delta P_{C,t}$ | -0.0006 |
| $\Delta P_{C,s}$ | 0.0000 |
| $\Delta P_{F,e}$ | -0.0001 |
| $\Delta P_{g,F}$ | -0.0003 |
| $\Delta P_{i,g}$ | -0.0037 |

| Other Properties | |
|---|-------|
| $\alpha_{-30/+70^\circ C} [10^{-6} / K]$ | 9.1 |
| $\alpha_{+20/+300^\circ C} [10^{-6} / K]$ | 10.6 |
| $T_g [^\circ C]$ | 419 |
| $T_{10}^{13.0} [^\circ C]$ | 411 |
| $T_{10}^{7.6} [^\circ C]$ | 585 |
| $c_p [J/(g \cdot K)]$ | 0.657 |
| $\lambda [W/(m \cdot K)]$ | 0.866 |
| $\rho [g/cm^3]$ | 3.22 |
| $E [10^3 N/mm^2]$ | 59 |
| μ | 0.223 |
| $K [10^{-6} mm^2/N]$ | 2.83 |
| $HK_{0.1/20}$ | 450 |
| HG | 2 |
| CR | 2 |
| FR | 0 |
| SR | 1 |
| AR | 2.3 |
| PR | 2 |