

| | | | | |
|----------------|---------------|-----------------|---------------|------------------------|
| H-LaK12 | 697562 | $n_d = 1.69680$ | $v_d = 56.19$ | $n_F - n_C = 0.012400$ |
| | | $n_e = 1.69975$ | $v_e = 55.98$ | $n_F - n_C = 0.012500$ |

| Refractive Indices | | |
|--------------------|----------------|-------------|
| | λ (nm) | n_λ |
| n_{2325} | 2325.42 | 1.65825 |
| n_{1970} | 1970.09 | 1.66578 |
| n_{1530} | 1529.58 | 1.67381 |
| n_{1129} | 1128.64 | 1.68059 |
| n_{1064} | 1064.00 | 1.68176 |
| n_t | 1013.98 | 1.68271 |
| n_s | 852.11 | 1.68629 |
| $n_{A'}$ | 768.19 | 1.68869 |
| n_f | 706.52 | 1.69087 |
| n_C | 656.27 | 1.69301 |
| $n_{C'}$ | 643.85 | 1.69361 |
| n_{He-Ne} | 632.80 | 1.69418 |
| n_D | 589.29 | 1.69668 |
| n_d | 587.56 | 1.69680 |
| n_e | 546.07 | 1.69975 |
| n_F | 486.13 | 1.70541 |
| $n_{F'}$ | 479.99 | 1.70611 |
| n_g | 435.84 | 1.71210 |
| n_h | 404.66 | 1.71764 |
| n_i | 365.01 | 1.72713 |
| | | |
| | | |

| Relative Partial Dispersion | |
|-----------------------------|--------|
| $P_{d,C}$ | 0.3056 |
| $P_{e,d}$ | 0.2379 |
| $P_{g,F}$ | 0.5395 |
| $P'_{d,c'}$ | 0.2552 |
| $P'_{e,d}$ | 0.2360 |
| $P'_{g,F'}$ | 0.4792 |
| | |

| Chemical Properties (grade) | |
|-----------------------------|---|
| RC (S) | 1 |
| RA (S) | 2 |
| D _w | 1 |
| D _A | 4 |
| R _{OH} (S) | 1 |
| RP (S) | 2 |
| CR | 1 |

| Internal Transmittance | | |
|------------------------|--------------|---------------|
| λ (nm) | τ_{5mm} | τ_{10mm} |
| 2400 | 0.795 | 0.614 |
| 2200 | 0.953 | 0.898 |
| 2000 | 0.988 | 0.969 |
| 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 |
| 950 | 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 | 0.999 | 0.994 |
| 420 | 0.999 | 0.989 |
| 400 | 0.999 | 0.984 |
| 390 | 0.997 | 0.978 |
| 380 | 0.992 | 0.967 |
| 370 | 0.983 | 0.948 |
| 360 | 0.968 | 0.918 |
| 350 | 0.942 | 0.858 |
| 340 | 0.907 | 0.792 |
| 330 | 0.856 | 0.699 |
| 320 | 0.785 | 0.581 |
| 310 | 0.688 | 0.442 |
| 300 | 0.564 | 0.289 |
| 290 | 0.401 | 0.144 |
| 280 | | |

| Deviation of Relative Partial Dispersions | |
|---|---------|
| $\Delta P_{F,e}$ | -0.0027 |
| $\Delta P_{g,F}$ | -0.0108 |
| $\Delta P_{C,t}$ | 0.0182 |
| $\Delta P_{C,s}$ | 0.0067 |

| Expansion Coefficient α ($\times 10^{-7}/K$) | |
|---|----------|
| $^{\circ}C$ | α |
| -50/-40 | 53 |
| -40/-30 | 55 |
| -30/-20 | 57 |
| -20/-10 | 58 |
| -10/0 | 58 |
| 0/10 | 59 |
| 10/20 | 59 |
| 20/30 | 60 |
| 30/40 | 60 |
| 40/50 | 60 |
| 50/60 | 61 |
| 60/70 | 61 |
| 70/80 | 61 |
| 80/90 | 62 |
| 90/100 | 62 |
| 100/110 | 63 |
| 110/120 | 64 |
| 120/130 | 65 |
| 130/140 | 66 |
| 140/150 | 67 |
| 150/160 | 67 |

| Thermal Properties | |
|---|------|
| T _g ($^{\circ}C$) | 673 |
| T _s ($^{\circ}C$) | 696 |
| T ₁₀ ^{14.5} ($^{\circ}C$) | 611 |
| T ₁₀ ¹³ ($^{\circ}C$) | 638 |
| $\alpha_{-50/80^{\circ}C}$ ($10^{-7}/K$) | 56 |
| $\alpha_{100/300^{\circ}C}$ ($10^{-7}/K$) | 72 |
| λ (W/(m K)) | 1.07 |

| Constants of Dispersion Formula | |
|---------------------------------|-----------------|
| A ₀ | 2.83112539E+00 |
| A ₁ | -1.55847682E-02 |
| A ₂ | 1.58070931E-02 |
| A ₃ | 1.24470183E-03 |
| A ₄ | -1.41192909E-04 |
| A ₅ | 7.83660883E-06 |

| Mechanical Properties | |
|-----------------------|-------|
| HK (10^7 Pa) | 616 |
| F _A | 79 |
| E (GPa) | 112.9 |
| G (GPa) | 43.2 |
| μ | 0.307 |
| σ_b (MPa) | 73 |
| B (10^{-12} /Pa) | 1.59 |

| Density | Solarization |
|-----------------------------|---------------------|
| ρ (g/cm ³) | $\Delta\lambda$ (%) |
| 3.71 | -2.0 |

| Range of Temperature ($^{\circ}C$) | Temperature Coefficients of Refractive Index | | | | | | | | | |
|--------------------------------------|---|-----|-----|-----|-------|-----|-----|-----|-----|-----|
| | dn/dt relative ($\times 10^{-6} / ^{\circ}C$) | | | | | | | | | |
| | t | s | C | C' | He-Ne | d | e | F | F' | g |
| -60 ~ -40 | 1.5 | 1.5 | 1.6 | 1.6 | 1.7 | 1.8 | 2.0 | 2.2 | 2.2 | 2.3 |
| -40 ~ -20 | 1.6 | 1.6 | 1.7 | 1.7 | 1.8 | 1.9 | 2.1 | 2.4 | 2.4 | 2.6 |
| -20 ~ 0 | 1.7 | 1.8 | 2.0 | 2.0 | 2.1 | 2.2 | 2.3 | 2.6 | 2.7 | 3.3 |
| 0 ~ 20 | 1.8 | 2.0 | 2.2 | 2.2 | 2.3 | 2.4 | 2.6 | 2.7 | 2.8 | 3.4 |
| 20 ~ 40 | 2.0 | 2.2 | 2.4 | 2.4 | 2.5 | 2.6 | 2.8 | 3.0 | 3.1 | 3.5 |
| 40 ~ 60 | 2.1 | 2.3 | 2.5 | 2.5 | 2.6 | 2.8 | 2.9 | 3.1 | 3.2 | 3.6 |
| 60 ~ 80 | 2.1 | 2.3 | 2.5 | 2.4 | 2.5 | 2.8 | 3.0 | 3.2 | 3.3 | 3.8 |
| 80 ~ 100 | 2.1 | 2.4 | 2.6 | 2.6 | 2.7 | 2.9 | 3.1 | 3.4 | 3.5 | 3.9 |
| 100 ~ 120 | 2.1 | 2.6 | 2.8 | 2.8 | 2.9 | 3.1 | 3.3 | 3.5 | 3.6 | 4.0 |
| 120 ~ 140 | 2.2 | 2.7 | 2.8 | 2.8 | 2.9 | 3.1 | 3.3 | 3.5 | 3.6 | 4.3 |
| 140 ~ 160 | 2.4 | 2.8 | 3.0 | 3.0 | 3.1 | 3.2 | 3.5 | 3.7 | 3.8 | 4.4 |

| Coloration Code | |
|--|---------|
| $\lambda_{80}(\lambda_{70})/\lambda_5$ | 360/270 |
| Coloration of Internal Transmittance | |
| $\lambda\tau_{80}/\lambda\tau_5$ | 334/268 |

| Constants of dn/dt | | |
|--------------------|----------------|----------------|
| D ₀ | D ₁ | D ₂ |
| 1.91E-07 | 1.65E-08 | -3.83E-11 |
| E ₀ | E ₁ | λ_{TK} |
| 3.84E-07 | 4.87E-10 | 2.27E-01 |