

| | | | | |
|---------------|---------------|-----------------|---------------|------------------------|
| H-TF3L | 613441 | $n_d = 1.61340$ | $v_d = 44.11$ | $n_F - n_C = 0.013907$ |
| | | $n_e = 1.61669$ | $v_e = 43.91$ | $n_F - n_C = 0.014044$ |

| Refractive Indices | | | Relative Partial Dispersion | | Chemical Properties (grade) | | Internal Transmittance | | |
|--------------------|----------------|-------------|--|--------|--|---|------------------------|--------------|---------------|
| | λ (nm) | n_λ | | | | | λ (nm) | τ_{5mm} | τ_{10mm} |
| n_{2325} | 2325.42 | 1.57673 | $P_{d,C}$ | 0.2991 | RC (S) | 1 | 2400 | 0.885 | 0.782 |
| n_{1970} | 1970.09 | 1.58314 | $P_{e,d}$ | 0.2366 | RA (S) | 1 | 2200 | 0.953 | 0.907 |
| n_{1530} | 1529.58 | 1.59013 | $P_{g,F}$ | 0.5623 | D_W | 1 | 2000 | 0.994 | 0.988 |
| n_{1129} | 1128.64 | 1.59636 | $P'_{d,c}$ | 0.2492 | D_A | 1 | 1800 | 0.999 | 0.998 |
| n_{1064} | 1064.00 | 1.59749 | $P'_{e,d}$ | 0.2343 | $R_{OH}(S)$ | 1 | 1600 | 0.999 | 0.998 |
| n_t | 1013.98 | 1.59843 | $P'_{g,F}$ | 0.5006 | RP (S) | 1 | 1400 | 0.999 | 0.998 |
| n_s | 852.11 | 1.60207 | | | CR | 1 | 1200 | 0.999 | 0.998 |
| $n_{A'}$ | 768.19 | 1.60458 | Deviation of Relative Partial Dispersions $\Delta P_{F,e}$ -0.0013 $\Delta P_{g,F}$ -0.0080 $\Delta P_{C,t}$ 0.0234 $\Delta P_{C,s}$ 0.0093 | | Expansion Coefficient $\alpha (\times 10^{-7}/K)$ $^{\circ}C$ α -50/-40 55 -40/-30 56 -30/-20 57 -20/-10 60 -10/0 63 0/10 62 10/20 61 20/30 64 30/40 63 40/50 66 50/60 65 60/70 66 70/80 68 80/90 66 90/100 73 100/110 69 110/120 68 120/130 72 130/140 71 140/150 76 150/160 73 | | 1060 | 0.999 | 0.998 |
| n_f | 706.52 | 1.60690 | | | | | 1000 | 0.999 | 0.998 |
| n_C | 656.27 | 1.60924 | | | | | 950 | 0.999 | 0.998 |
| $n_{C'}$ | 643.85 | 1.60990 | | | | | 900 | 0.999 | 0.998 |
| n_{He-Ne} | 632.80 | 1.61051 | | | | | 850 | 0.999 | 0.998 |
| n_D | 589.29 | 1.61327 | 800 | 0.999 | 0.998 | | | | |
| n_d | 587.56 | 1.61340 | 750 | 0.999 | 0.998 | | | | |
| n_e | 546.07 | 1.61669 | 700 | 0.999 | 0.998 | | | | |
| n_F | 486.13 | 1.62315 | 650 | 0.999 | 0.998 | | | | |
| $n_{F'}$ | 479.99 | 1.62394 | 600 | 0.999 | 0.998 | | | | |
| n_g | 435.84 | 1.63097 | 550 | 0.999 | 0.998 | | | | |
| n_h | 404.66 | 1.63765 | 500 | 0.998 | 0.996 | | | | |
| n_i | 365.01 | 1.64956 | 480 | 0.997 | 0.994 | | | | |
| | | | 460 | 0.996 | 0.992 | | | | |
| | | | 440 | 0.995 | 0.990 | | | | |
| | | | 420 | 0.993 | 0.987 | | | | |
| | | | 400 | 0.990 | 0.980 | | | | |
| | | | 390 | 0.989 | 0.978 | | | | |
| | | | 380 | 0.982 | 0.964 | | | | |
| | | | 370 | 0.970 | 0.941 | | | | |
| | | | 360 | 0.948 | 0.899 | | | | |
| | | | 350 | 0.903 | 0.815 | | | | |
| | | | 340 | 0.828 | 0.685 | | | | |
| | | | 330 | 0.647 | 0.418 | | | | |
| | | | 320 | 0.239 | 0.057 | | | | |
| | | | 310 | | | | | | |
| | | | 300 | | | | | | |
| | | | 290 | | | | | | |
| | | | 280 | | | | | | |

| Constants of Dispersion Formula | |
|---------------------------------|-----------------|
| A_0 | 2.54989010E+00 |
| A_1 | -1.24016345E-02 |
| A_2 | 1.74291594E-02 |
| A_3 | 1.02656330E-03 |
| A_4 | -8.81502201E-05 |
| A_5 | 6.75446845E-06 |

| Density | Solarization |
|-----------------------------|--------------|
| ρ (g/cm ³) | 2.84 |
| $\Delta\lambda$ (%) | -0.7 |

| Thermal Properties | |
|---|------|
| T_g (°C) | 579 |
| T_s (°C) | 623 |
| $T_{10}^{14.5}$ (°C) | 504 |
| T_{10}^{13} (°C) | 547 |
| $\alpha_{-50/80^{\circ}C}$ (10 ⁻⁷ /K) | 62 |
| $\alpha_{100/300^{\circ}C}$ (10 ⁻⁷ /K) | 78 |
| λ (W/(m K)) | 0.97 |

| Mechanical Properties | |
|---------------------------|-------|
| HK (10 ⁷ Pa) | 575 |
| F_A | 111 |
| E (GPa) | 86.9 |
| G (GPa) | 35.1 |
| μ | 0.238 |
| σ_b (MPa) | 63 |
| B (10 ⁻¹² /Pa) | 3.28 |

| Range of Temperature (°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 | 4.3 | 4.5 | 4.6 | 4.7 | 4.8 | 5.0 | 5.2 | 5.5 | 5.6 | 6.3 |
| -40 ~ -20 | 4.3 | 4.6 | 4.7 | 4.8 | 4.9 | 5.0 | 5.2 | 5.6 | 5.7 | 6.4 |
| -20 ~ 0 | 4.3 | 4.5 | 4.7 | 4.8 | 4.9 | 5.0 | 5.3 | 5.7 | 5.8 | 6.5 |
| 0 ~ 20 | 4.4 | 4.6 | 4.8 | 4.9 | 5.0 | 5.1 | 5.4 | 5.7 | 5.8 | 6.6 |
| 20 ~ 40 | 4.4 | 4.6 | 4.8 | 4.9 | 5.0 | 5.1 | 5.4 | 5.8 | 5.9 | 6.7 |
| 40 ~ 60 | 4.4 | 4.7 | 4.9 | 5.0 | 5.1 | 5.2 | 5.5 | 6.0 | 6.1 | 6.8 |
| 60 ~ 80 | 4.5 | 4.8 | 5.0 | 5.1 | 5.2 | 5.3 | 5.6 | 6.0 | 6.1 | 6.9 |
| 80 ~ 100 | 4.5 | 4.9 | 5.1 | 5.2 | 5.3 | 5.4 | 5.7 | 6.1 | 6.2 | 7.1 |
| 100 ~ 120 | 4.5 | 4.9 | 5.2 | 5.2 | 5.3 | 5.5 | 5.8 | 6.2 | 6.3 | 7.2 |
| 120 ~ 140 | 4.5 | 5.0 | 5.3 | 5.3 | 5.4 | 5.7 | 6.0 | 6.3 | 6.4 | 7.3 |
| 140 ~ 160 | 4.6 | 5.1 | 5.4 | 5.4 | 5.5 | 5.8 | 6.1 | 6.5 | 6.6 | 7.5 |

| Coloration Code | |
|--|---------|
| $\lambda_{80}(\lambda_{70})/\lambda_5$ | 360/320 |

| Coloration of Internal Transmittance | |
|--------------------------------------|---------|
| $\lambda\tau_{80}/\lambda\tau_5$ | 349/321 |

| Constants of dn/dt | | |
|--------------------|----------|----------------|
| D_0 | D_1 | D_2 |
| 5.46E-06 | 1.31E-08 | -2.19E-11 |
| E_0 | E_1 | λ_{TK} |
| 4.56E-07 | 3.98E-10 | 2.95E-01 |