| H-F51 | 640345 | $n_d$ =1.63980 | $\upsilon_d$ =34.46 | $n_F - n_C$ =0.018564 |
|---|---|---|---|---|
| | | $n_e$ =1.64419 | $\upsilon_e$ =34.20 | $n_{F'} - n_{C'}$ =0.018835 |

| Refractive Indices | | |
|---|---|---|
| | λ (nm) | |
| $n_t$ | 1014.0 | |
| $n_r$ | 706.5 | 1.63138 |
| $n_C$ | 656.3 | 1.63438 |
| $n_{C'}$ | 643.8 | 1.63522 |
| $n_{He-Ne}$ | 632.8 | 1.63602 |
| $n_D$ | 589.3 | 1.63964 |
| $n_d$ | 587.6 | 1.63980 |
| $n_e$ | 546.1 | 1.64419 |
| $n_F$ | 486.1 | 1.65294 |
| $n_{F'}$ | 480.0 | 1.65406 |
| $n_g$ | 435.8 | 1.66393 |
| $n_h$ | 404.7 | 1.67361 |
| $n_i$ | 365.0 | |
| | | |

| Constants of Dispersion Formula | |
|---|---|
| $A_0$ | 2.6334392 |
| $A_1$ | $-2.3786997\times10^{-2}$ |
| $A_2$ | $1.3503973\times10^{-2}$ |
| $A_3$ | $3.9049789\times10^{-3}$ |
| $A_4$ | $-4.1410670\times10^{-4}$ |
| $A_5$ | $2.7097419\times10^{-5}$ |

| Deviation of Relative Partial Dispersions ΔP from the"Normal Line" | |
|---|---|
| $\Delta P_{F,e}$ | 0.0006 |
| $\Delta P_{g,F}$ | 0.0050 |
| | |

| Relative Partial Dispersions | | | |
|---|---|---|---|
| $P_{d,C}$ | 0.2919 | $P'_{d,C'}$ | 0.2431 |
| $P_{e,d}$ | 0.2365 | $P'_{e,d}$ | 0.2331 |
| $P_{g,F}$ | 0.5920 | $P'_{g,F'}$ | 0.5240 |

| Chemical Properties | |
|---|---|
| | Grade |
| RC(S) | 2 |
| RA(S) | 1 |
| $D_W$ | 1 |
| $D_A$ | 1 |

| Thermal Properties | |
|---|---|
| $T_g$ (℃) | 597 |
| $T_s$ (℃) | 632 |
| $T_{10^{14.5}}$ (℃) | 535 |
| $T_{10^{13}}$ (℃) | 571 |
| $T_{10^{7.6}}$(℃) | |
| $\alpha_{20/120℃}$($10^{-7}$/K) | 87 |
| $\alpha_{100/300℃}$($10^{-7}$/K) | 102 |
| λ (W/m・K) | |

| Mechanical Properties | |
|---|---|
| $H_K$ ($10^7$Pa) | 567 |
| $F_A$ | 127 |
| E ($10^7$Pa) | 8087 |
| G ($10^7$Pa) | 3265 |
| μ | 0.237 |
| B ($10^{-12}$/Pa) | |

| Other Properties | |
|---|---|
| ρ (g/cm$^3$) | 2.76 |

| Internal Transmittance | | |
|---|---|---|
| λ (nm) | τ 5 mm | τ 10 mm |
| 2400 | 0.922 | 0.851 |
| 2200 | 0.940 | 0.884 |
| 2000 | 0.975 | 0.950 |
| 1800 | 0.987 | 0.975 |
| 1600 | 0.998 | 0.997 |
| 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 |
| 700 | 0.998 | 0.996 |
| 650 | 0.997 | 0.995 |
| 600 | 0.997 | 0.995 |
| 550 | 0.997 | 0.995 |
| 500 | 0.996 | 0.992 |
| 480 | 0.995 | 0.990 |
| 460 | 0.993 | 0.987 |
| 440 | 0.991 | 0.983 |
| 420 | 0.986 | 0.972 |
| 400 | 0.962 | 0.925 |
| 390 | 0.923 | 0.852 |
| 380 | 0.83 | 0.69 |
| 370 | 0.59 | 0.35 |
| 360 | 0.20 | 0.04 |
| 350 | | |
| 340 | | |
| 330 | | |
| 320 | | |
| 310 | | |
| 300 | | |
| 290 | | |
| 280 | | |
| | | |

| Coloration Code | |
|---|---|
| $\lambda_{80}/\lambda_5$ | 39/36 |
| | |

**Temperature Coefficients of Refractive Index**

| Rang of Temperature | dn/dt relative($10^{-6}$/℃) | | | | | |
|---|---|---|---|---|---|---|
| | t | C′ | d | e | F′ | g |
| -40～-20 | | | | | | |
| -20～0 | | | | | | |
| 0～20 | | | | | | |
| 20～40 | | | | | | |
| 40～60 | | | | | | |
| 60～80 | | | | | | |

CDGM