

| | | | | |
|---------------|---------------|-----------------|---------------|------------------------------|
| H-FK69 | 593686 | $n_d = 1.59282$ | $v_d = 68.63$ | $n_F - n_C = 0.008638$ |
| | | $n_e = 1.59489$ | $v_e = 68.25$ | $n_{F'} - n_{C'} = 0.008716$ |

| Refractive Indices | | |
|--------------------|----------------|-------------|
| | λ (nm) | n_λ |
| n_{2325} | 2325.42 | 1.57002 |
| n_{1970} | 1970.09 | 1.57383 |
| n_{1530} | 1529.58 | 1.57808 |
| n_{1129} | 1128.64 | 1.58198 |
| n_{1064} | 1064.00 | 1.58269 |
| n_t | 1013.98 | 1.58328 |
| n_s | 852.11 | 1.58561 |
| $n_{A'}$ | 768.19 | 1.58723 |
| n_r | 706.52 | 1.58873 |
| n_C | 656.27 | 1.59021 |
| $n_{C'}$ | 643.85 | 1.59062 |
| n_{He-Ne} | 632.80 | 1.59101 |
| n_D | 589.29 | 1.59275 |
| n_d | 587.56 | 1.59282 |
| n_e | 546.07 | 1.59489 |
| n_F | 486.13 | 1.59884 |
| $n_{F'}$ | 479.99 | 1.59934 |
| n_g | 435.84 | 1.60354 |
| n_h | 404.66 | 1.60740 |
| n_i | 365.01 | 1.61397 |

| Constants of Dispersion Formula | |
|---------------------------------|-----------------|
| A_0 | 2.50210584E+00 |
| A_1 | -7.29437368E-03 |
| A_2 | 1.22873858E-02 |
| A_3 | 2.57463363E-04 |
| A_4 | -1.16391265E-05 |
| A_5 | 6.15553004E-07 |

| Density | | Solarization | |
|-----------------------------|------|---------------------|------|
| ρ (g/cm ³) | 4.07 | $\Delta\lambda$ (%) | -1.3 |

| Relative Partial Dispersion | |
|-----------------------------|--------|
| $P_{d,C}$ | 0.3022 |
| $P_{e,d}$ | 0.2396 |
| $P_{g,F}$ | 0.5441 |
| $P'_{d,c'}$ | 0.2524 |
| $P'_{e,d}$ | 0.2375 |
| $P'_{g,F'}$ | 0.4819 |

| Deviation of Relative Partial Dispersions | |
|---|---------|
| $\Delta P_{F,e}$ | 0.0050 |
| $\Delta P_{g,F}$ | 0.0145 |
| $\Delta P_{C,t}$ | -0.0704 |
| $\Delta P_{C,s}$ | -0.0326 |

| Thermal Properties | |
|--|------|
| T _g (°C) | 584 |
| T _s (°C) | 608 |
| T ₁₀ ^{14.5} (°C) | 564 |
| T ₁₀ ¹³ (°C) | 575 |
| $\alpha_{-50/80^\circ C}$ (10 ⁻⁷ /K) | 113 |
| $\alpha_{100/300^\circ C}$ (10 ⁻⁷ /K) | 136 |
| λ (W/(m·K)) | 0.64 |

| Mechanical Properties | |
|---------------------------|-------|
| HK (10 ⁷ Pa) | 390 |
| F _A | 365 |
| E (GPa) | 73.3 |
| G (GPa) | 28.2 |
| μ | 0.298 |
| σ_b (MPa) | 41.7 |
| B (10 ⁻¹² /Pa) | 0.44 |

| Chemical Properties (grade) | |
|-----------------------------|---|
| RC (S) | 1 |
| RA (S) | 1 |
| D _W | 1 |
| D _A | 3 |
| R _{OH} (S) | 2 |
| RP (S) | 2 |

| Expansion Coefficient α (×10 ⁻⁷ /K) | |
|---|----------|
| °C | α |
| -50/-40 | 103 |
| -40/-30 | 105 |
| -30/-20 | 107 |
| -20/-10 | 108 |
| -10/0 | 109 |
| 0/10 | 110 |
| 10/20 | 111 |
| 20/30 | 112 |
| 30/40 | 113 |
| 40/50 | 114 |
| 50/60 | 115 |
| 60/70 | 116 |
| 70/80 | 117 |
| 80/90 | 118 |
| 90/100 | 119 |
| 100/110 | 120 |
| 110/120 | 122 |
| 120/130 | 123 |
| 130/140 | 124 |
| 140/150 | 125 |
| 150/160 | 127 |

| Internal Transmittance | | |
|------------------------|--------------|---------------|
| λ (nm) | τ_{5mm} | τ_{10mm} |
| 2400 | 0.999 | 0.998 |
| 2200 | 0.999 | 0.998 |
| 2000 | 0.999 | 0.998 |
| 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 | 0.998 |
| 420 | 0.998 | 0.996 |
| 400 | 0.997 | 0.994 |
| 390 | 0.995 | 0.990 |
| 380 | 0.990 | 0.978 |
| 370 | 0.978 | 0.956 |
| 360 | 0.955 | 0.909 |
| 350 | 0.912 | 0.829 |
| 340 | 0.839 | 0.702 |
| 330 | 0.728 | 0.530 |
| 320 | 0.591 | 0.350 |
| 310 | 0.448 | 0.201 |
| 300 | 0.325 | 0.107 |
| 290 | 0.235 | 0.056 |
| 280 | 0.175 | 0.032 |

| Range of Temperature (°C) | Temperature Coefficients of Refractive Index | | | | | | | | | |
|---------------------------|--|------|------|------|-------|------|------|------|------|------|
| | dn/dt relative (×10 ⁻⁶ / °C) | | | | | | | | | |
| | t | s | C | C' | He-Ne | d | e | F | F' | g |
| -60 ~ -40 | -5.0 | -4.9 | -4.8 | -4.8 | -4.8 | -4.7 | -4.6 | -4.5 | -4.5 | -4.3 |
| -40 ~ -20 | -5.4 | -5.3 | -5.2 | -5.2 | -5.2 | -5.1 | -5.0 | -4.9 | -4.8 | -4.6 |
| -20 ~ 0 | -5.6 | -5.5 | -5.5 | -5.5 | -5.5 | -5.4 | -5.2 | -5.1 | -5.1 | -4.9 |
| 0 ~ 20 | -5.7 | -5.6 | -5.6 | -5.6 | -5.6 | -5.5 | -5.4 | -5.3 | -5.3 | -5.1 |
| 20 ~ 40 | -5.8 | -5.7 | -5.7 | -5.7 | -5.7 | -5.6 | -5.5 | -5.4 | -5.4 | -5.2 |
| 40 ~ 60 | -6.0 | -5.9 | -5.9 | -5.9 | -5.8 | -5.7 | -5.6 | -5.5 | -5.5 | -5.3 |
| 60 ~ 80 | -6.1 | -6.0 | -5.9 | -5.9 | -5.9 | -5.7 | -5.6 | -5.6 | -5.5 | -5.3 |
| 80 ~ 100 | -6.2 | -6.1 | -6.0 | -6.0 | -6.0 | -5.8 | -5.7 | -5.6 | -5.6 | -5.3 |
| 100 ~ 120 | -6.3 | -6.2 | -6.1 | -6.1 | -6.1 | -6.0 | -5.8 | -5.7 | -5.6 | -5.4 |
| 120 ~ 140 | -6.4 | -6.3 | -6.2 | -6.2 | -6.2 | -6.1 | -5.9 | -5.8 | -5.7 | -5.5 |
| 140 ~ 160 | -6.6 | -6.5 | -6.4 | -6.3 | -6.3 | -6.2 | -6.1 | -6.0 | -5.9 | -5.7 |

| Coloration Code | |
|--|---------|
| $\lambda_{80}(\lambda_{70})/\lambda_5$ | 360/290 |
| Coloration of Internal Transmittance | |
| $\lambda\tau_{80}/\lambda\tau_5$ | 345/281 |

| Constants of dn/dt | | |
|--------------------|----------------|----------------|
| D ₀ | D ₁ | D ₂ |
| -1.56E-05 | 2.44E-09 | -1.24E-11 |
| E ₀ | E ₁ | λ_{TK} |
| 2.89E-07 | 2.96E-10 | 2.33E-01 |