

| | |
|-----------------|---------------|
| H-ZLaF68 | 883408 |
|-----------------|---------------|

| | | |
|-------------|-----------|---------------------|
| nd =1.88300 | vd =40.79 | nF - nC =0.021640 |
| ne =1.88815 | ve =40.56 | nF' - nc' =0.021897 |

| Refractive Indices | | |
|--------------------|------------------|---------|
| | λ (nm) | |
| n_r | 706.5 | 1.87299 |
| n_c | 656.3 | 1.87657 |
| $n_{c'}$ | 643.8 | 1.87758 |
| n_{He-Ne} | 632.8 | 1.87853 |
| n_D | 589.3 | 1.88281 |
| n_d | 587.6 | 1.883 |
| n_e | 546.1 | 1.88815 |
| n_F | 486.1 | 1.89821 |
| $n_{F'}$ | 480.0 | 1.89948 |
| n_g | 435.8 | 1.91043 |
| n_h | 404.7 | 1.92081 |
| n_i | 365.0 | 1.93893 |

| Constants of Dispersion (Cauchy) | |
|----------------------------------|-----------------------------|
| A_0 | 3.4419038 |
| A_1 | $-1.4175245 \times 10^{-2}$ |
| A_2 | 3.4351040×10^{-2} |
| A_3 | 1.1752271×10^{-3} |
| A_4 | $-3.9010343 \times 10^{-5}$ |
| A_5 | 3.7417054×10^{-6} |

| Relative Partial Dispersions | | | |
|------------------------------|--------|-------------|--------|
| $P_{d,c}$ | 0.2971 | $P'_{d,c'}$ | 0.2475 |
| $P_{e,d}$ | 0.238 | $P'_{e,d}$ | 0.2352 |
| $P_{g,F}$ | 0.5647 | $P'_{g,F'}$ | 0.5 |

| Deviation of Relative Partial Dispersions | |
|---|---------|
| $\Delta P_{F,e}$ | -0.0027 |
| $\Delta P_{g,F}$ | -0.0109 |

| | | | |
|------------|--------|-----------|------------|
| NHG | HOYA | OHARA | SCHOTT |
| H - ZLaF68 | TAFD30 | S - LAH58 | N - LASF31 |

| Chemical Properties | |
|---------------------|-------|
| | Group |
| RC(S) | 1 |
| RA(S) | 3 |
| DW | 1 |
| DA | 2 |

| Thermal Properties | |
|---|-----|
| T_g (°C) | 730 |
| T_s (°C) | 775 |
| $T_{10}^{14.5}$ (°C) | 683 |
| T_{10}^{13} (°C) | 718 |
| $\alpha_{20/120^\circ C}$ ($10^{-7}/K$) | 70 |
| $\alpha_{20/300^\circ C}$ ($10^{-7}/K$) | 86 |

| Mechanical Properties | |
|--------------------------------|-------|
| Hardness ($10^7 Pa$) | 736 |
| FA (Relative Abrasion) | |
| Young's Modulus ($10^7 Pa$) | 12524 |
| Rigidity Modulus ($10^7 Pa$) | 4816 |
| Poisson's Ratio | 0.3 |

| Photoelastic Constant | |
|---------------------------|--|
| β ($10^{-12}/Pa$) | |

| Color | |
|--------------------------|-------|
| λ_{80}/λ_5 | 44/32 |
| λ_{70}/λ_5 | 38/32 |

| Specific Gravity | |
|---------------------|------|
| ρ (g/cm^3) | 5.47 |

| Internal Transmission | | |
|-----------------------|--------------|---------------|
| λ (nm) | τ_{5mm} | τ_{10mm} |
| 2400 | 0.930 | 0.865 |
| 2200 | 0.981 | 0.962 |
| 2000 | 0.991 | 0.982 |
| 1800 | 0.998 | 0.996 |
| 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 | 0.998 | 0.997 |
| 700 | 0.998 | 0.996 |
| 650 | 0.997 | 0.995 |
| 600 | 0.997 | 0.994 |
| 550 | 0.996 | 0.993 |
| 500 | 0.993 | 0.986 |
| 480 | 0.989 | 0.979 |
| 460 | 0.985 | 0.971 |
| 440 | 0.981 | 0.963 |
| 420 | 0.975 | 0.950 |
| 400 | 0.961 | 0.923 |
| 390 | 0.947 | 0.896 |
| 380 | 0.923 | 0.852 |
| 370 | 0.880 | 0.780 |
| 360 | 0.820 | 0.680 |
| 350 | 0.740 | 0.550 |
| 340 | 0.620 | 0.390 |
| 330 | 0.470 | 0.220 |
| 320 | 0.280 | 0.080 |
| 310 | 0.100 | 0.010 |
| 300 | | |
| 290 | | |
| 280 | | |



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