

S-LAH79

Code(d) **003283**

Code(e) **011281**

| | | | | | |
|------------------------|----------------------------|---------------------|--------------|-----------------------|-----------------|
| Refractive Index n_d | 2.00330 2.003300 | Abbe Number ν_d | 28.27 | Dispersion n_F-n_C | 0.035486 |
| Refractive Index n_e | 2.011689 | Abbe Number ν_e | 28.07 | Dispersion n_F-n_C' | 0.036041 |

| Refractive Indices | | |
|------------------------|----------|---------|
| $\lambda(\mu\text{m})$ | | |
| n_{2325} | 2.32542 | 1.93904 |
| n_{1970} | 1.97009 | 1.94642 |
| n_{1530} | 1.52958 | 1.95518 |
| n_{1129} | 1.12864 | 1.96486 |
| n_t | 1.01398 | 1.96873 |
| n_s | 0.85211 | 1.97630 |
| $n_{A'}$ | 0.76819 | 1.98195 |
| n_r | 0.70652 | 1.98739 |
| n_C | 0.65627 | 1.99301 |
| $n_{C'}$ | 0.64385 | 1.99461 |
| $n_{\text{He-Ne}}$ | 0.6328 | 1.99613 |
| n_D | 0.58929 | 2.00299 |
| n_d | 0.58756 | 2.00330 |
| n_e | 0.54607 | 2.01169 |
| n_F | 0.48613 | 2.02850 |
| $n_{F'}$ | 0.47999 | 2.03066 |
| $n_{\text{He-Cd}}$ | 0.44157 | 2.04682 |
| n_g | 0.435835 | 2.04972 |
| n_h | 0.404656 | 2.06844 |
| n_i | 0.365015 | |

| Constants of Dispersion Formula | |
|---------------------------------|----------------|
| A_1 | 2.32557148E+00 |
| A_2 | 5.07967133E-01 |
| A_3 | 2.43087198E+00 |
| B_1 | 1.32895208E-02 |
| B_2 | 5.28335449E-02 |
| B_3 | 1.61122408E+02 |

| Chemical Properties | |
|---|-----|
| Water Resistance(Powder) Group RW(P) | 1 |
| Acid Resistance(Powder) Group RA(P) | 1 |
| Weathering Resistance(Surface) Group W(S) | 2 |
| Acid Resistance(Surface) Group SR | 1.0 |
| Phosphate Resistance PR | 1.0 |

| Mechanical Properties | |
|---|---------|
| Young's Modulus E (10^9N/m^2) | 1255 |
| Rigidity Modulus G (10^8N/m^2) | 484 |
| Poisson's Ratio σ | 0.297 |
| Knoop Hardness Hk[Class] | 700 7 |
| Abrasion Aa | 61 |
| Photoelastic Constant β (nm/cm/ 10^9Pa) | 1.89 |

| Temperature Coefficients of Refractive Index | | | | | | | |
|--|---|-----|-------|------|------|------|------|
| Range of Temperature (°C) | dn/dT relative ($10^{-6}/^\circ\text{C}$) | | | | | | |
| | t | C' | He-Ne | D | e | F' | g |
| -40~-20 | 6.5 | 8.0 | 8.1 | 8.6 | 9.2 | 10.7 | 12.4 |
| -20~ 0 | 6.7 | 8.2 | 8.3 | 8.9 | 9.5 | 11.1 | 12.9 |
| 0~20 | 6.9 | 8.5 | 8.6 | 9.2 | 9.8 | 11.5 | 13.4 |
| 20~40 | 7.0 | 8.7 | 8.9 | 9.4 | 10.1 | 11.9 | 13.8 |
| 40~60 | 7.2 | 9.0 | 9.1 | 9.7 | 10.4 | 12.2 | 14.3 |
| 60~80 | 7.4 | 9.2 | 9.4 | 10.0 | 10.7 | 12.6 | 14.8 |

| Partial Dispersions | |
|---------------------|----------|
| n_C-n_t | 0.024281 |
| $n_C-n_{A'}$ | 0.011059 |
| n_d-n_C | 0.010289 |
| n_e-n_C | 0.018678 |
| n_g-n_d | 0.046416 |
| n_g-n_F | 0.021219 |
| n_h-n_g | 0.018725 |
| n_i-n_g | |
| n_C-n_t | 0.025885 |
| $n_e-n_{C'}$ | 0.017074 |
| n_F-n_e | 0.018967 |
| $n_i-n_{F'}$ | |

| Relative Partial Dispersions | |
|------------------------------|--------|
| $\theta_{C,t}$ | 0.6842 |
| $\theta_{C,A'}$ | 0.3116 |
| $\theta_{d,C}$ | 0.2899 |
| $\theta_{e,C}$ | 0.5263 |
| $\theta_{g,d}$ | 1.3080 |
| $\theta_{g,F}$ | 0.5980 |
| $\theta_{h,g}$ | 0.5277 |
| $\theta_{i,g}$ | |
| $\theta'_{C,t}$ | 0.7182 |
| $\theta'_{e,C'}$ | 0.4737 |
| $\theta'_{F,e}$ | 0.5263 |
| $\theta'_{i,F'}$ | |

| Deviation of Relative Dispersions $\Delta\theta$ from "Normal" | |
|--|--------|
| $\Delta\theta_{C,t}$ | 0.0049 |
| $\Delta\theta_{C,A'}$ | 0.0015 |
| $\Delta\theta_{g,d}$ | 0.0020 |
| $\Delta\theta_{g,F}$ | 0.0023 |
| $\Delta\theta_{i,g}$ | |

| Thermal Properties | |
|---|-------|
| Strain Point StP (°C) | |
| Annealing Point AP (°C) | |
| Transformation Temperature Tg (°C) | 699 |
| Yield Point At (°C) | 731 |
| Softening Point SP (°C) | |
| Expansion Coefficients (-30~+70°C) | 60 |
| α ($10^{-7}/^\circ\text{C}$) (+100~+300°C) | 71 |
| Thermal Conductivity k (W/m·K) | 0.957 |

| Coloring | | | |
|----------------|-----|-------------|-----|
| λ_{80} | | λ_5 | 370 |
| λ_{70} | 460 | | |

| Internal transmission | | | |
|-----------------------|-----|------------------|-----|
| $\lambda_{0.80}$ | 435 | $\lambda_{0.05}$ | 371 |

| CCI | | |
|------|-------|-------|
| B | G | R |
| 0.00 | 10.86 | 11.57 |

| Internal Transmittance | |
|------------------------|-------------|
| $\lambda(\text{nm})$ | τ 10mm |
| 280 | |
| 290 | |
| 300 | |
| 310 | |
| 320 | |
| 330 | |
| 340 | |
| 350 | |
| 360 | |
| 370 | 0.03 |
| 380 | 0.16 |
| 390 | 0.33 |
| 400 | 0.50 |
| 420 | 0.72 |
| 440 | 0.83 |
| 460 | 0.88 |
| 480 | 0.921 |
| 500 | 0.945 |
| 550 | 0.979 |
| 600 | 0.988 |
| 650 | 0.991 |
| 700 | 0.993 |
| 800 | 0.996 |
| 900 | 0.997 |
| 1000 | 0.997 |
| 1200 | 0.998 |
| 1400 | 0.998 |
| 1600 | 0.997 |
| 1800 | 0.994 |
| 2000 | 0.986 |
| 2200 | 0.966 |
| 2400 | 0.89 |

| Other Properties | |
|------------------------|------|
| Bubble Quality Group B | |
| Specific Gravity d | 5.23 |
| Remarks | |

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