

S-LAH60V

Code(d) **834372**

Code(e) **839370**

| | | | | | |
|------------------------|----------------------------|---------------------|--------------|-----------------------|-----------------|
| Refractive Index n_d | 1.83400 1.834000 | Abbe Number ν_d | 37.21 | Dispersion n_F-n_C | 0.022416 |
| Refractive Index n_e | 1.839313 | Abbe Number ν_e | 36.95 | Dispersion n_F-n_C' | 0.022716 |

| Refractive Indices | | |
|------------------------|----------|---------|
| $\lambda(\mu\text{m})$ | | |
| n_{2325} | 2.32542 | 1.78608 |
| n_{1970} | 1.97009 | 1.79301 |
| n_{1530} | 1.52958 | 1.80073 |
| n_{1129} | 1.12864 | 1.80833 |
| n_t | 1.01398 | 1.81114 |
| n_s | 0.85211 | 1.81638 |
| $n_{A'}$ | 0.76819 | 1.82016 |
| n_f | 0.70652 | 1.82374 |
| n_C | 0.65627 | 1.82740 |
| $n_{C'}$ | 0.64385 | 1.82844 |
| $n_{\text{He-Ne}}$ | 0.6328 | 1.82941 |
| n_D | 0.58929 | 1.83380 |
| n_d | 0.58756 | 1.83400 |
| n_e | 0.54607 | 1.83931 |
| n_F | 0.48613 | 1.84981 |
| $n_{F'}$ | 0.47999 | 1.85115 |
| $n_{\text{He-Cd}}$ | 0.44157 | 1.86107 |
| n_g | 0.435835 | 1.86283 |
| n_h | 0.404656 | 1.87412 |
| n_i | 0.365015 | 1.89456 |

| Constants of Dispersion Formula | |
|---------------------------------|----------------|
| A_1 | 2.05081962E+00 |
| A_2 | 2.08475257E-01 |
| A_3 | 1.31486394E+00 |
| B_1 | 1.16035991E-02 |
| B_2 | 5.26489359E-02 |
| B_3 | 9.93806500E+01 |

| Chemical Properties | |
|---|------|
| Water Resistance(Powder) Group RW(P) | 1 |
| Acid Resistance(Powder) Group RA(P) | 3 |
| Weathering Resistance(Surface) Group W(S) | 1 |
| Acid Resistance(Surface) Group SR | 51.2 |
| Phosphate Resistance PR | 1.0 |

| Mechanical Properties | |
|---|---------|
| Young's Modulus E (10^9N/m^2) | 1114 |
| Rigidity Modulus G (10^9N/m^2) | 445 |
| Poisson's Ratio σ | 0.253 |
| Knoop Hardness Hk(Class) | 660 7 |
| Abrasion Aa | 57 |
| Photoelastic Constant β (nm/cm/ 10^9Pa) | 2.10 |

| Partial Dispersions | |
|---------------------|----------|
| n_C-n_t | 0.016264 |
| $n_C-n_{A'}$ | 0.007235 |
| n_d-n_C | 0.006601 |
| n_e-n_C | 0.011914 |
| n_g-n_d | 0.028833 |
| $n_g-n_{F'}$ | 0.013018 |
| n_h-n_g | 0.011289 |
| n_i-n_h | 0.031732 |
| n_C-n_t | 0.017300 |
| n_e-n_C | 0.010878 |
| $n_{F'}-n_e$ | 0.011838 |
| $n_i-n_{F'}$ | 0.043414 |

| Relative Partial Dispersions | |
|------------------------------|--------|
| $\theta_{C,t}$ | 0.7256 |
| $\theta_{C,A'}$ | 0.3228 |
| $\theta_{d,C}$ | 0.2945 |
| $\theta_{e,C}$ | 0.5315 |
| $\theta_{g,d}$ | 1.2863 |
| $\theta_{g,F'}$ | 0.5807 |
| $\theta_{h,g}$ | 0.5036 |
| $\theta_{i,g}$ | 1.4156 |
| $\theta_{C',t}$ | 0.7616 |
| $\theta'_{e,C'}$ | 0.4789 |
| $\theta'_{F',e}$ | 0.5211 |
| $\theta'_{i,F'}$ | 1.9112 |

| Deviation of Relative Dispersions $\Delta\theta$ from "Normal" | |
|--|---------|
| $\Delta\theta_{C,t}$ | 0.0043 |
| $\Delta\theta_{C,A'}$ | 0.0018 |
| $\Delta\theta_{g,d}$ | -0.0011 |
| $\Delta\theta_{g,F'}$ | -0.0006 |
| $\Delta\theta_{i,g}$ | 0.0022 |

| Thermal Properties | |
|---|-------|
| Strain Point StP ($^{\circ}\text{C}$) | 570 |
| Annealing Point AP ($^{\circ}\text{C}$) | 588 |
| Transformation Temperature Tg ($^{\circ}\text{C}$) | 603 |
| Yield Point At ($^{\circ}\text{C}$) | 635 |
| Softening Point SP ($^{\circ}\text{C}$) | 669 |
| Expansion Coefficients (-30~+70 $^{\circ}\text{C}$) | 58 |
| α ($10^{-7}/^{\circ}\text{C}$) (+100~+300 $^{\circ}\text{C}$) | 73 |
| Thermal Conductivity k (W/m·K) | 0.880 |

| Coloring | | | |
|----------------|-----|-------------|-----|
| λ_{80} | 430 | λ_5 | 350 |
| λ_{70} | | | |

| Internal transmission | | | |
|-----------------------|-----|-------------|-----|
| λ_{80} | 383 | λ_5 | 350 |

| CCI | | |
|------|------|------|
| B | G | R |
| 0.00 | 1.88 | 1.93 |

| Internal Transmittance | |
|------------------------|-------------|
| $\lambda(\text{nm})$ | τ 10mm |
| 280 | |
| 290 | |
| 300 | |
| 310 | |
| 320 | |
| 330 | |
| 340 | |
| 350 | 0.05 |
| 360 | 0.29 |
| 370 | 0.59 |
| 380 | 0.77 |
| 390 | 0.86 |
| 400 | 0.909 |
| 420 | 0.951 |
| 440 | 0.968 |
| 460 | 0.979 |
| 480 | 0.986 |
| 500 | 0.991 |
| 550 | 0.996 |
| 600 | 0.996 |
| 650 | 0.996 |
| 700 | 0.997 |
| 800 | 0.999 |
| 900 | 0.999 |
| 1000 | 0.999 |
| 1200 | 0.999 |
| 1400 | 0.996 |
| 1600 | 0.993 |
| 1800 | 0.984 |
| 2000 | 0.961 |
| 2200 | 0.905 |
| 2400 | 0.72 |

| Other Properties | |
|------------------------|------|
| Bubble Quality Group B | |
| Specific Gravity d | 4.43 |
| Remarks | |

| Temperature Coefficients of Refractive Index | | | | | | | |
|--|---|-----|-------|-----|------|------|------|
| Range of Temperature ($^{\circ}\text{C}$) | dn/dt relative ($10^{-6}/^{\circ}\text{C}$) | | | | | | |
| | t | C' | He-Ne | D | e | F' | g |
| -40~-20 | 7.4 | 8.4 | 8.5 | 8.8 | 9.2 | 10.1 | 11.2 |
| -20~ 0 | 7.5 | 8.5 | 8.6 | 8.9 | 9.4 | 10.4 | 11.5 |
| 0~20 | 7.5 | 8.6 | 8.7 | 9.0 | 9.5 | 10.5 | 11.7 |
| 20~40 | 7.5 | 8.7 | 8.7 | 9.1 | 9.5 | 10.6 | 11.9 |
| 40~60 | 7.7 | 8.8 | 8.9 | 9.2 | 9.7 | 10.8 | 12.1 |
| 60~80 | 7.8 | 9.0 | 9.1 | 9.5 | 10.0 | 11.2 | 12.5 |

OHARA 16-3,16-003