

J-LASF010

$n_d = 1.834000$

$n_e = 1.839319$

$v_d = 37.18$

$v_e = 36.94$

| |
|----------------|
| Glass code (d) |
| 834372 |
| Glass code (e) |
| 839369 |

| Spectral l. | Refractive idx |
|-------------|----------------|
| 2.058 | 1.78975 |
| 1.970 | 1.79154 |
| 1.530 | 1.79993 |
| 1.129 | 1.80799 |
| 1.064 | 1.80956 |
| t | 1.81089 |
| s | 1.81625 |
| A' | 1.820090 |
| r | 1.823703 |
| C | 1.827379 |
| C' | 1.828420 |
| He-Ne | 1.829395 |
| D | 1.833803 |
| d | 1.834000 |
| e | 1.839319 |
| F | 1.849808 |
| F' | 1.851140 |
| g | 1.862767 |
| h | 1.873960 |
| 0.389 | 1.881006 |
| i | 1.894125 |

| Partial dispersion | |
|--------------------|----------|
| F-C | 0.022429 |
| F'-C' | 0.022720 |
| C-t | 0.016489 |
| C-A' | 0.007289 |
| d-C | 0.006621 |
| e-C | 0.011940 |
| g-d | 0.028767 |
| g-F | 0.012959 |
| h-g | 0.011193 |
| i-g | 0.031358 |
| C'-t | 0.017530 |
| e-C' | 0.010899 |
| F'-e | 0.011821 |
| i-F' | 0.042985 |

| Internal CC (80%/5%) | |
|----------------------|------|
| 378/343 | |
| Color Code (80%/5%) | |
| 425/345 | |
| CCI | |
| B | 0.00 |
| G | 1.64 |
| R | 1.77 |

| Internal trans. (10mm) | |
|------------------------|--------|
| λ [nm] | τ |
| 280 | - |
| 290 | - |
| 300 | - |
| 310 | - |
| 320 | - |
| 330 | - |
| 340 | 0.03 |
| 350 | 0.18 |
| 360 | 0.46 |
| 370 | 0.70 |
| 380 | 0.82 |
| 390 | 0.88 |
| 400 | 0.919 |
| 420 | 0.955 |
| 440 | 0.970 |
| 460 | 0.979 |
| 480 | 0.985 |
| 500 | 0.990 |
| 550 | 0.996 |
| 600 | 0.998 |
| 650 | 0.998 |
| 700 | 0.999 |
| 800 | 0.998 |
| 900 | 0.997 |
| 1000 | 0.997 |
| 1200 | 0.998 |
| 1400 | 0.997 |
| 1600 | 0.992 |
| 1800 | 0.982 |
| 2000 | 0.965 |
| 2200 | 0.910 |
| 2400 | 0.72 |

| Thermal properties | |
|--------------------------|-------|
| CTE(-30,70) [1E-7/°C] | 54 |
| CTE(100,300) [1E-7/°C] | 68 |
| Tg [°C] | 628 |
| At [°C] | 664 |
| StP [°C] | 583 |
| AP [°C] | 612 |
| SP [°C] | 718 |
| Ht condct. [W/m·K] | 0.947 |
| Sp. heat [kJ/kg·K] | 0.541 |
| Ht diffus. [1E-6 m2/sec] | 0.409 |

| Relative partial dispersion | |
|-----------------------------|--------|
| C-t/F-C | 0.7352 |
| C-A'/F-C | 0.3250 |
| d-C/F-C | 0.2952 |
| e-C/F-C | 0.5323 |
| g-d/F-C | 1.2826 |
| g-F/F-C | 0.5778 |
| h-g/F-C | 0.4990 |
| i-g/F-C | 1.3981 |
| C'-t/F'-C' | 0.7716 |
| e-C'/F'-C' | 0.4797 |
| F'-e/F'-C' | 0.5203 |
| i-F'/F'-C' | 1.8919 |

| Chemical properties [class] | |
|-----------------------------|---|
| Acid res. (surface) | 1 |
| Alkaline detergent res. | 1 |
| Climate resistance | 1 |
| Water res. (powder) | 1 |
| Acid res. (powder) | 3 |

| Coef. disp. form. (pwr ser.) | |
|------------------------------|-----------------|
| A0 | 3.25964047E+00 |
| A1 | -1.45636865E-02 |
| A2 | -1.71298494E-04 |
| A3 | 3.51194196E-02 |
| A4 | 6.30621917E-04 |
| A5 | 9.80352299E-05 |
| A6 | -8.04182070E-06 |
| A7 | 6.28587289E-07 |
| A8 | 0.00000000E+00 |

| Mechanical properties | |
|--------------------------------------|---------|
| Knoop hardness | 639 (6) |
| Abrasion hardness | 71 |
| Young's mod. [GPa] | 116.7 |
| Shear mod. [GPa] | 45.0 |
| Poisson's ratio | 0.297 |
| Stress optical coef. [1E-5 nm/cm/Pa] | 2.21 |

| Deviation of relative partial disp. | |
|-------------------------------------|---------|
| ΔPdC | 0.0012 |
| ΔPgF | -0.0042 |

| Specific gravity | |
|------------------|--|
| 4.28 | |

| Relative $\Delta n / \Delta T$ [1E-6/°C] | | | | | | | | | | | | | | | | |
|--|-------|-----|-----|-----|-----|-----|-----|-------|-----|-----|-----|-----|------|------|-------|--|
| Temp. [°C] | 1.083 | t | s | A' | r | C | C' | He-Ne | d | e | F | F' | g | h | 0.389 | |
| 80 to 90 (ref.) | 6.3 | 6.4 | 6.7 | 7.0 | 7.3 | 7.6 | 7.7 | 7.7 | 8.1 | 8.5 | 9.4 | 9.6 | 10.7 | 12.0 | 12.9 | |
| 60 to 80 (ref.) | 6.1 | 6.2 | 6.6 | 6.8 | 7.0 | 7.3 | 7.4 | 7.4 | 7.8 | 8.2 | 9.1 | 9.2 | 10.4 | 11.6 | 12.4 | |
| 40 to 60 | 5.8 | 5.9 | 6.2 | 6.5 | 6.7 | 6.9 | 7.0 | 7.1 | 7.4 | 7.8 | 8.7 | 8.8 | 9.9 | 11.0 | 11.9 | |
| 20 to 40 | 5.5 | 5.6 | 5.9 | 6.2 | 6.4 | 6.6 | 6.7 | 6.8 | 7.1 | 7.5 | 8.3 | 8.4 | 9.4 | 10.6 | 11.3 | |
| 0 to 20 | 5.3 | 5.4 | 5.7 | 5.9 | 6.1 | 6.4 | 6.4 | 6.5 | 6.8 | 7.2 | 7.9 | 8.0 | 9.0 | 10.1 | 10.9 | |
| -20 to 0 | 5.1 | 5.2 | 5.5 | 5.7 | 5.9 | 6.1 | 6.2 | 6.3 | 6.6 | 6.9 | 7.7 | 7.8 | 8.7 | 9.7 | 10.4 | |
| -40 to -20 | 5.0 | 5.1 | 5.4 | 5.6 | 5.8 | 6.0 | 6.1 | 6.1 | 6.4 | 6.7 | 7.4 | 7.5 | 8.4 | 9.4 | 10.1 | |
| -60 to -40 (ref.) | 5.0 | 5.1 | 5.4 | 5.6 | 5.8 | 6.0 | 6.0 | 6.1 | 6.3 | 6.7 | 7.3 | 7.4 | 8.3 | 9.2 | 9.9 | |
| -70 to -60 (ref.) | 5.1 | 5.2 | 5.5 | 5.6 | 5.8 | 6.0 | 6.1 | 6.1 | 6.4 | 6.7 | 7.3 | 7.4 | 8.3 | 9.2 | 9.8 | |

| Absolute $\Delta n / \Delta T$ [1E-6/°C] | | | | | | | | | | | | | | | | |
|--|-------|-----|-----|-----|-----|-----|-----|-------|-----|-----|-----|-----|-----|------|-------|--|
| Temp. [°C] | 1.083 | t | s | A' | r | C | C' | He-Ne | d | e | F | F' | g | h | 0.389 | |
| 80 to 90 | 5.2 | 5.3 | 5.7 | 5.9 | 6.2 | 6.4 | 6.5 | 6.6 | 6.9 | 7.4 | 8.3 | 8.4 | 9.6 | 10.8 | 11.7 | |
| 60 to 80 | 4.9 | 5.0 | 5.3 | 5.6 | 5.8 | 6.1 | 6.1 | 6.2 | 6.5 | 7.0 | 7.8 | 8.0 | 9.1 | 10.3 | 11.1 | |
| 40 to 60 | 4.4 | 4.5 | 4.8 | 5.1 | 5.3 | 5.6 | 5.6 | 5.7 | 6.0 | 6.4 | 7.3 | 7.4 | 8.4 | 9.6 | 10.4 | |
| 20 to 40 | 4.0 | 4.1 | 4.4 | 4.6 | 4.8 | 5.0 | 5.1 | 5.2 | 5.5 | 5.9 | 6.7 | 6.8 | 7.8 | 8.9 | 9.7 | |
| 0 to 20 | 3.5 | 3.6 | 3.9 | 4.1 | 4.3 | 4.5 | 4.6 | 4.7 | 5.0 | 5.3 | 6.1 | 6.2 | 7.1 | 8.2 | 8.9 | |
| -20 to 0 | 3.1 | 3.1 | 3.4 | 3.6 | 3.8 | 4.0 | 4.1 | 4.2 | 4.4 | 4.8 | 5.5 | 5.6 | 6.5 | 7.5 | 8.2 | |
| -40 to -20 | 2.6 | 2.7 | 2.9 | 3.1 | 3.3 | 3.5 | 3.6 | 3.6 | 3.9 | 4.2 | 4.9 | 5.0 | 5.9 | 6.8 | 7.5 | |
| -60 to -40 | 2.2 | 2.2 | 2.5 | 2.7 | 2.8 | 3.0 | 3.1 | 3.1 | 3.4 | 3.7 | 4.3 | 4.4 | 5.2 | 6.1 | 6.8 | |
| -70 to -60 | 1.8 | 1.9 | 2.1 | 2.3 | 2.5 | 2.6 | 2.7 | 2.7 | 3.0 | 3.3 | 3.9 | 4.0 | 4.7 | 5.6 | 6.2 | |

| Coef. disp. form. (frac. eq.) (ref.) | |
|--------------------------------------|----------------|
| P1 | 1.04623045E-01 |
| Q1 | 6.64846075E+01 |
| P2 | 2.01481579E-02 |
| Q2 | 4.84277053E-02 |
| P3 | 4.09502477E-01 |
| Q3 | 6.84010411E-03 |

| Fitting error of disp. form. σ [1E-6] | | |
|--|---------|----------|
| | Visible | Infrared |
| Power ser. eq. | 0.7 | 6.8 |
| Frac. eq. (ref.) | 1.5 | 13.0 |

| | |
|----------------------|---|
| Prod. Freq. (A to D) | A |
|----------------------|---|

| Similar glass type | | | |
|--------------------|-----------|--------|----------|
| OHARA | S-LAH60 | HOYA | NBFD10 |
| CDGM | H-ZLaF53B | SCHOTT | N-LASF40 |

| | |
|----------|--|
| 2022-7-1 | StP, AP, SP |
| 2019-4-1 | Transmittance |
| 2015-4-1 | Color Code, Prod. Freq, Similar glass type |