

J-LASF017

$n_d = 1.795000$

$n_e = 1.799174$

$v_d = 45.31$

$v_e = 45.06$

| | |
|----------------|--------|
| Glass code (d) | 795453 |
| Glass code (e) | 799451 |

| Spectral l. | Refractive idx |
|-------------|----------------|
| 2.058 | 1.75641 |
| 1.970 | 1.75817 |
| 1.530 | 1.76627 |
| 1.129 | 1.77364 |
| 1.064 | 1.77501 |
| t | 1.77616 |
| s | 1.78069 |
| A' | 1.783853 |
| r | 1.786787 |
| C | 1.789742 |
| C' | 1.790573 |
| He-Ne | 1.791351 |
| D | 1.794845 |
| d | 1.795000 |
| e | 1.799174 |
| F | 1.807287 |
| F' | 1.808308 |
| g | 1.817109 |
| h | 1.825410 |
| 0.389 | 1.830542 |
| i | 1.839897 |

| Coef. disp. form. (pwr ser.) | |
|------------------------------|-----------------|
| A0 | 3.14264424E+00 |
| A1 | -1.44687256E-02 |
| A2 | -1.59589924E-04 |
| A3 | 2.73342436E-02 |
| A4 | 6.08068420E-04 |
| A5 | 1.80054470E-07 |
| A6 | 1.58176253E-06 |
| A7 | 0.00000000E+00 |
| A8 | 0.00000000E+00 |

| Partial dispersion | |
|--------------------|----------|
| F-C | 0.017545 |
| F'-C' | 0.017735 |
| C-t | 0.013577 |
| C-A' | 0.005889 |
| d-C | 0.005258 |
| e-C | 0.009432 |
| g-d | 0.022109 |
| g-F | 0.009822 |
| h-g | 0.008301 |
| i-g | 0.022788 |
| C'-t | 0.014408 |
| e-C' | 0.008601 |
| F'-e | 0.009134 |
| i-F' | 0.031589 |

| Relative partial dispersion | |
|-----------------------------|--------|
| C-t/F-C | 0.7738 |
| C-A'/F-C | 0.3357 |
| d-C/F-C | 0.2997 |
| e-C/F-C | 0.5376 |
| g-d/F-C | 1.2601 |
| g-F/F-C | 0.5598 |
| h-g/F-C | 0.4731 |
| i-g/F-C | 1.2988 |
| C'-t/F'-C' | 0.8124 |
| e-C'/F'-C' | 0.4850 |
| F'-e/F'-C' | 0.5150 |
| i-F'/F'-C' | 1.7812 |

| Deviation of relative partial disp. | |
|-------------------------------------|---------|
| ΔPdC | 0.0020 |
| ΔPgF | -0.0085 |

| Internal CC (80%/5%) | |
|----------------------|--|
| 364/321 | |

| Color Code (80%/5%) | |
|---------------------|--|
| 395/320 | |

| CCI | |
|-----|------|
| B | 0.00 |
| G | 0.83 |
| R | 0.86 |

| Thermal properties | |
|--------------------------|-------|
| CTE(-30,70) [1E-7/°C] | 64 |
| CTE(100,300) [1E-7/°C] | 71 |
| Tg [°C] | 660 |
| At [°C] | 686 |
| Ht condct. [W/m·K] | 0.881 |
| Sp. heat [kJ/kg·K] | 0.502 |
| Ht diffus. [1E-6 m2/sec] | 0.405 |

| Chemical properties [class] | |
|-----------------------------|---|
| Acid res. (surface) | 1 |
| Alkaline detergent res. | 2 |
| Climate resistance | 1 |
| Water res. (powder) | 1 |
| Acid res. (powder) | 4 |

| Mechanical properties | |
|--------------------------------------|---------|
| Knoop hardness | 707 (7) |
| Abrasion hardness | 61 |
| Young's mod. [GPa] | 118.6 |
| Shear mod. [GPa] | 45.7 |
| Poisson's ratio | 0.297 |
| Stress optical coef. [1E-5 nm/cm/Pa] | 1.74 |

| Internal trans. (10mm) | |
|------------------------|--------|
| λ [nm] | τ |
| 280 | 0.00 |
| 290 | 0.00 |
| 300 | 0.00 |
| 310 | 0.00 |
| 320 | 0.04 |
| 330 | 0.18 |
| 340 | 0.40 |
| 350 | 0.61 |
| 360 | 0.76 |
| 370 | 0.85 |
| 380 | 0.909 |
| 390 | 0.941 |
| 400 | 0.959 |
| 420 | 0.978 |
| 440 | 0.985 |
| 460 | 0.989 |
| 480 | 0.993 |
| 500 | 0.996 |
| 550 | 0.998 |
| 600 | 0.999 |
| 650 | 0.999 |
| 700 | 0.999 |
| 800 | 0.998 |
| 900 | 0.997 |
| 1000 | 0.997 |
| 1200 | 0.997 |
| 1400 | 0.995 |
| 1600 | 0.990 |
| 1800 | 0.979 |
| 2000 | 0.960 |
| 2200 | 0.89 |
| 2400 | 0.67 |

| Specific gravity | |
|------------------|--|
| 4.34 | |

| 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.) | 4.7 | 4.7 | 4.8 | 5.1 | 5.3 | 5.5 | 5.5 | 5.6 | 5.8 | 6.1 | 6.7 | 6.8 | 7.6 | 8.4 | 8.8 | |
| 60 to 80 (ref.) | 4.5 | 4.5 | 4.7 | 4.9 | 5.1 | 5.3 | 5.3 | 5.4 | 5.6 | 5.9 | 6.5 | 6.6 | 7.3 | 8.1 | 8.5 | |
| 40 to 60 | 4.3 | 4.3 | 4.5 | 4.7 | 4.9 | 5.0 | 5.1 | 5.2 | 5.4 | 5.7 | 6.2 | 6.3 | 7.0 | 7.7 | 8.2 | |
| 20 to 40 | 4.1 | 4.1 | 4.3 | 4.5 | 4.7 | 4.8 | 4.9 | 4.9 | 5.2 | 5.4 | 6.0 | 6.1 | 6.7 | 7.4 | 7.9 | |
| 0 to 20 | 4.0 | 4.0 | 4.2 | 4.3 | 4.5 | 4.7 | 4.7 | 4.8 | 5.0 | 5.2 | 5.8 | 5.8 | 6.5 | 7.2 | 7.6 | |
| -20 to 0 | 3.9 | 3.9 | 4.1 | 4.2 | 4.4 | 4.6 | 4.6 | 4.7 | 4.9 | 5.1 | 5.6 | 5.7 | 6.3 | 7.0 | 7.4 | |
| -40 to -20 | 3.9 | 3.9 | 4.1 | 4.2 | 4.4 | 4.5 | 4.6 | 4.6 | 4.8 | 5.1 | 5.5 | 5.6 | 6.2 | 6.8 | 7.2 | |
| -60 to -40 (ref.) | 4.0 | 4.0 | 4.2 | 4.3 | 4.5 | 4.6 | 4.7 | 4.7 | 4.9 | 5.1 | 5.6 | 5.6 | 6.2 | 6.8 | 7.2 | |
| -70 to -60 (ref.) | 4.1 | 4.2 | 4.3 | 4.4 | 4.6 | 4.7 | 4.8 | 4.8 | 5.0 | 5.2 | 5.7 | 5.7 | 6.3 | 6.9 | 7.2 | |

| 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 | 3.6 | 3.6 | 3.8 | 4.0 | 4.2 | 4.4 | 4.4 | 4.5 | 4.7 | 5.0 | 5.6 | 5.7 | 6.4 | 7.2 | 7.6 | |
| 60 to 80 | 3.3 | 3.3 | 3.5 | 3.7 | 3.9 | 4.1 | 4.1 | 4.2 | 4.4 | 4.7 | 5.3 | 5.3 | 6.1 | 6.8 | 7.3 | |
| 40 to 60 | 2.9 | 3.0 | 3.1 | 3.3 | 3.5 | 3.7 | 3.7 | 3.8 | 4.0 | 4.3 | 4.8 | 4.9 | 5.6 | 6.3 | 6.7 | |
| 20 to 40 | 2.6 | 2.6 | 2.8 | 2.9 | 3.1 | 3.3 | 3.3 | 3.4 | 3.6 | 3.9 | 4.4 | 4.5 | 5.1 | 5.8 | 6.2 | |
| 0 to 20 | 2.2 | 2.2 | 2.4 | 2.6 | 2.7 | 2.9 | 2.9 | 3.0 | 3.2 | 3.4 | 3.9 | 4.0 | 4.7 | 5.3 | 5.7 | |
| -20 to 0 | 1.9 | 1.9 | 2.0 | 2.2 | 2.4 | 2.5 | 2.6 | 2.6 | 2.8 | 3.0 | 3.5 | 3.6 | 4.2 | 4.8 | 5.2 | |
| -40 to -20 | 1.5 | 1.5 | 1.7 | 1.8 | 2.0 | 2.1 | 2.2 | 2.2 | 2.4 | 2.6 | 3.1 | 3.1 | 3.7 | 4.3 | 4.7 | |
| -60 to -40 | 1.2 | 1.2 | 1.3 | 1.4 | 1.6 | 1.7 | 1.8 | 1.8 | 2.0 | 2.2 | 2.6 | 2.7 | 3.3 | 3.8 | 4.1 | |
| -70 to -60 | 0.9 | 0.9 | 1.0 | 1.2 | 1.3 | 1.4 | 1.5 | 1.5 | 1.7 | 1.9 | 2.3 | 2.4 | 2.9 | 3.4 | 3.8 | |

| Coef. disp. form. (frac. eq.) (ref.) | |
|--------------------------------------|----------------|
| P1 | 1.13511476E-01 |
| Q1 | 6.97040915E+01 |
| P2 | 2.39810663E-02 |
| Q2 | 3.50738448E-02 |
| P3 | 3.92647816E-01 |
| Q3 | 5.82130127E-03 |

| Fitting error of disp. form. σ [1E-6] | | |
|--|---------|----------|
| | Visible | Infrared |
| Power ser. eq. | 0.7 | 5.9 |
| Frac. eq. (ref.) | 0.7 | 8.3 |

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

| Similar glass type | | | |
|--------------------|---|--------|------|
| OHARA | - | HOYA | TAF2 |
| CDGM | - | SCHOTT | - |

| | |
|----------|------------------------|
| 2019-4-1 | Transmittance |
| 2015-4-1 | Color Code, Prod. Freq |
| 2009-9-1 | 1st edition |