

J-BAF11

$n_d = 1.666720$

$n_e = 1.670002$

$v_d = 48.33$

$v_e = 48.04$

| |
|----------------|
| Glass code (d) |
| 667483 |
| Glass code (e) |
| 670480 |

| Spectral l. | Refractive idx |
|-------------|----------------|
| 2.058 | 1.63817 |
| 1.970 | 1.63935 |
| 1.530 | 1.64491 |
| 1.129 | 1.65021 |
| 1.064 | 1.65123 |
| t | 1.65210 |
| s | 1.65555 |
| A' | 1.657996 |
| r | 1.660282 |
| C | 1.662593 |
| C' | 1.663245 |
| He-Ne | 1.663855 |
| D | 1.666598 |
| d | 1.666720 |
| e | 1.670002 |
| F | 1.676388 |
| F' | 1.677191 |
| g | 1.684118 |
| h | 1.690647 |
| 0.389 | 1.694683 |
| i | 1.702036 |

| Coef. disp. form. (pwr ser.) | |
|------------------------------|-----------------|
| A0 | 2.71886836E+00 |
| A1 | -9.21086428E-03 |
| A2 | -5.97080099E-05 |
| A3 | 2.02512558E-02 |
| A4 | 4.23467645E-04 |
| A5 | -1.03717059E-06 |
| A6 | 1.22100678E-06 |
| A7 | 0.00000000E+00 |
| A8 | 0.00000000E+00 |

| Partial dispersion | |
|--------------------|----------|
| F-C | 0.013795 |
| F'-C' | 0.013946 |
| C-t | 0.010494 |
| C-A' | 0.004597 |
| d-C | 0.004127 |
| e-C | 0.007409 |
| g-d | 0.017398 |
| g-F | 0.007730 |
| h-g | 0.006529 |
| i-g | 0.017918 |
| C'-t | 0.011146 |
| e-C' | 0.006757 |
| F'-e | 0.007189 |
| i-F' | 0.024845 |

| Relative partial dispersion | |
|-----------------------------|--------|
| C-t/F-C | 0.7607 |
| C-A'/F-C | 0.3332 |
| d-C/F-C | 0.2992 |
| e-C/F-C | 0.5371 |
| g-d/F-C | 1.2612 |
| g-F/F-C | 0.5603 |
| h-g/F-C | 0.4733 |
| i-g/F-C | 1.2989 |
| C'-t/F'-C' | 0.7992 |
| e-C'/F'-C' | 0.4845 |
| F'-e/F'-C' | 0.5155 |
| i-F'/F'-C' | 1.7815 |

| Deviation of relative partial disp. | |
|-------------------------------------|---------|
| ΔPdC | 0.0001 |
| ΔPgF | -0.0029 |

| Internal CC (80%/5%) | |
|----------------------|--|
| 362/331 | |

| Color Code (80%/5%) | |
|---------------------|--|
| 375/330 | |

| CCI | |
|-----|------|
| B | 0.00 |
| G | 0.47 |
| R | 0.46 |

| Thermal properties | |
|--------------------------|-------|
| CTE(-30,70) [1E-7/°C] | 67 |
| CTE(100,300) [1E-7/°C] | 84 |
| Tg [°C] | 573 |
| At [°C] | 631 |
| Ht condct. [W/m·K] | 0.895 |
| Sp. heat [kJ/kg·K] | 0.563 |
| Ht diffus. [1E-6 m2/sec] | 0.442 |

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

| Mechanical properties | |
|--------------------------------------|---------|
| Knoop hardness | 544 (5) |
| Abrasion hardness | 124 |
| Young's mod. [GPa] | 94.0 |
| Shear mod. [GPa] | 36.8 |
| Poisson's ratio | 0.277 |
| Stress optical coef. [1E-5 nm/cm/Pa] | 2.21 |

| Internal trans. (10mm) | |
|------------------------|--------|
| λ [nm] | τ |
| 280 | 0.00 |
| 290 | 0.00 |
| 300 | 0.00 |
| 310 | 0.00 |
| 320 | 0.00 |
| 330 | 0.04 |
| 340 | 0.22 |
| 350 | 0.52 |
| 360 | 0.76 |
| 370 | 0.89 |
| 380 | 0.941 |
| 390 | 0.967 |
| 400 | 0.979 |
| 420 | 0.987 |
| 440 | 0.989 |
| 460 | 0.991 |
| 480 | 0.994 |
| 500 | 0.996 |
| 550 | 0.998 |
| 600 | 0.997 |
| 650 | 0.997 |
| 700 | 0.997 |
| 800 | 0.997 |
| 900 | 0.997 |
| 1000 | 0.997 |
| 1200 | 0.998 |
| 1400 | 0.997 |
| 1600 | 0.992 |
| 1800 | 0.979 |
| 2000 | 0.970 |
| 2200 | 0.935 |
| 2400 | 0.88 |

| Specific gravity | |
|------------------|--|
| 3.59 | |

| 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.) | 4.3 | 4.3 | 4.5 | 4.7 | 4.9 | 5.0 | 5.1 | 5.1 | 5.4 | 5.6 | 6.2 | 6.3 | 7.0 | 7.7 | 8.1 | |
| 60 to 80 (ref.) | 4.2 | 4.2 | 4.4 | 4.6 | 4.7 | 4.9 | 5.0 | 5.0 | 5.2 | 5.5 | 6.1 | 6.1 | 6.8 | 7.5 | 7.9 | |
| 40 to 60 | 4.1 | 4.1 | 4.3 | 4.4 | 4.6 | 4.8 | 4.8 | 4.9 | 5.1 | 5.3 | 5.9 | 5.9 | 6.6 | 7.2 | 7.6 | |
| 20 to 40 | 4.0 | 4.0 | 4.2 | 4.3 | 4.5 | 4.6 | 4.7 | 4.7 | 4.9 | 5.2 | 5.7 | 5.8 | 6.4 | 7.0 | 7.4 | |
| 0 to 20 | 3.9 | 3.9 | 4.1 | 4.3 | 4.4 | 4.6 | 4.6 | 4.7 | 4.8 | 5.1 | 5.6 | 5.6 | 6.2 | 6.8 | 7.2 | |
| -20 to 0 | 3.9 | 3.9 | 4.1 | 4.2 | 4.4 | 4.5 | 4.6 | 4.6 | 4.8 | 5.0 | 5.5 | 5.6 | 6.1 | 6.7 | 7.0 | |
| -40 to -20 | 4.0 | 4.0 | 4.1 | 4.3 | 4.4 | 4.6 | 4.6 | 4.6 | 4.8 | 5.0 | 5.5 | 5.6 | 6.1 | 6.6 | 6.9 | |
| -60 to -40 (ref.) | 4.1 | 4.1 | 4.3 | 4.4 | 4.6 | 4.7 | 4.7 | 4.8 | 4.9 | 5.2 | 5.6 | 5.6 | 6.2 | 6.7 | 7.0 | |
| -70 to -60 (ref.) | 4.3 | 4.3 | 4.5 | 4.6 | 4.7 | 4.9 | 4.9 | 4.9 | 5.1 | 5.3 | 5.7 | 5.8 | 6.3 | 6.8 | 7.1 | |

| 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 | 3.3 | 3.3 | 3.5 | 3.7 | 3.8 | 4.0 | 4.1 | 4.1 | 4.3 | 4.6 | 5.2 | 5.2 | 5.9 | 6.6 | 7.0 | |
| 60 to 80 | 3.1 | 3.1 | 3.3 | 3.5 | 3.6 | 3.8 | 3.8 | 3.9 | 4.1 | 4.4 | 4.9 | 5.0 | 5.7 | 6.3 | 6.7 | |
| 40 to 60 | 2.8 | 2.8 | 3.0 | 3.2 | 3.3 | 3.5 | 3.5 | 3.6 | 3.8 | 4.0 | 4.6 | 4.6 | 5.3 | 5.9 | 6.3 | |
| 20 to 40 | 2.5 | 2.6 | 2.7 | 2.9 | 3.0 | 3.2 | 3.2 | 3.3 | 3.5 | 3.7 | 4.2 | 4.3 | 4.9 | 5.5 | 5.9 | |
| 0 to 20 | 2.3 | 2.3 | 2.5 | 2.6 | 2.8 | 2.9 | 3.0 | 3.0 | 3.2 | 3.4 | 3.9 | 3.9 | 4.5 | 5.1 | 5.4 | |
| -20 to 0 | 2.0 | 2.0 | 2.2 | 2.3 | 2.5 | 2.6 | 2.7 | 2.7 | 2.9 | 3.1 | 3.5 | 3.6 | 4.2 | 4.7 | 5.0 | |
| -40 to -20 | 1.7 | 1.8 | 1.9 | 2.0 | 2.2 | 2.3 | 2.4 | 2.4 | 2.6 | 2.8 | 3.2 | 3.3 | 3.8 | 4.3 | 4.6 | |
| -60 to -40 | 1.5 | 1.5 | 1.6 | 1.8 | 1.9 | 2.0 | 2.1 | 2.1 | 2.3 | 2.5 | 2.9 | 2.9 | 3.4 | 3.9 | 4.2 | |
| -70 to -60 | 1.3 | 1.3 | 1.4 | 1.6 | 1.7 | 1.8 | 1.8 | 1.9 | 2.0 | 2.2 | 2.6 | 2.7 | 3.1 | 3.6 | 3.9 | |

| Coef. disp. form. (frac. eq.) (ref.) | |
|--------------------------------------|----------------|
| P1 | 1.22633232E-01 |
| Q1 | 1.00010916E+02 |
| P2 | 1.54366657E-02 |
| Q2 | 3.89083675E-02 |
| P3 | 3.48798360E-01 |
| Q3 | 6.16825972E-03 |

| Fitting error of disp. form. σ [1E-6] | | |
|--|---------|----------|
| | Visible | Infrared |
| Power ser. eq. | 0.5 | 1.9 |
| Frac. eq. (ref.) | 0.5 | 2.8 |

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

| Similar glass type | | | |
|--------------------|----------|--------|-------|
| OHARA | S-BAH11 | HOYA | BAF11 |
| CDGM | H-ZBaF16 | SCHOTT | - |

| | |
|----------|--------------------|
| 2019-4-1 | Transmittance |
| 2018-4-1 | Prod. Freq. |
| 2016-4-1 | Similar glass type |