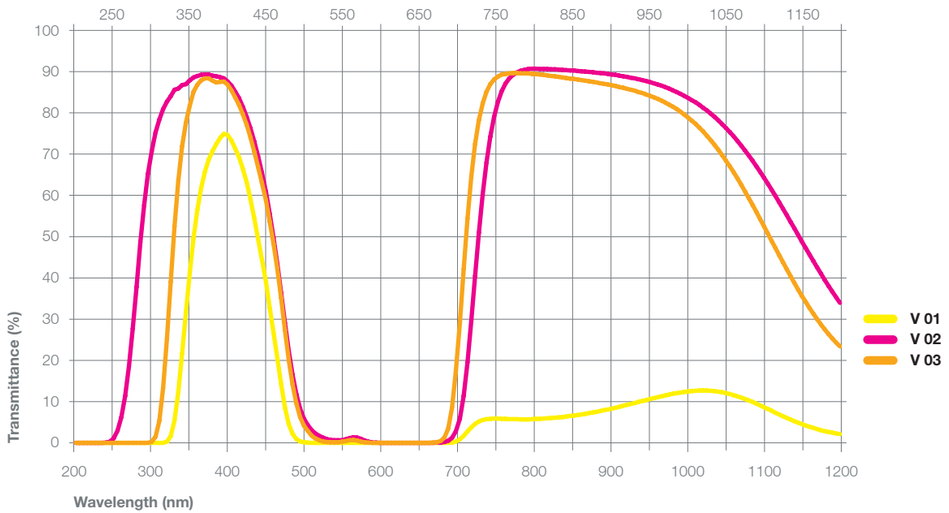
# Glass Types

| VIOLET | HEBO | Schott | Hoya |
|---|---|---|---|
| | **V 01** | | ≈ B-390 |
| | **V 02** | ≈ BG 3 | |
| | **V 03** | | ≈ B-370 |

# Violet Glass Characteristics

| Type | Thickness (mm) | A[2856K] | | | D65 | | | Chemical Stability | | $N_D$ | α×10-7(°C) | $T_g$(°C) | $T_s$(°C) | ρ (g/cm³) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | x | y | Y | x | y | Y | $D_A$ | $D_W$ | | | | | |
| **V 01** | 2 | 0.519 | 0.018 | 0.2 | 0.160 | 0.016 | 0.6 | 1 | 3 | 1.524 | 89 | 519 | 589 | 2.53 |
| **V 02** | 1 | 0.152 | 0.034 | 1.0 | 0.154 | 0.027 | 1.4 | 1 | 2 | 1.495 | 58 | 551 | 655 | 2.40 |
| **V 03** | 2 | 0.165 | 0.011 | 0.1 | 0.166 | 0.010 | 0.2 | 1 | 2 | 1.495 | 57 | 538 | 636 | 2.40 |

| Type | | Bubbles | Striae | Stress |
|---|---|---|---|---|
| **V 01** | | C-B | 4 | 3 |
| **V 02** | | C-B | 4 | 3 |
| **V 03** | | C-B | 4 | 3 |




| Thickness (mm) | V 01<br>2 | V 02<br>1 | V 03<br>2 |
|---|---|---|---|
| Wavelength (nm) | %T | %T | %T |
| 200 | $3 \cdot 10^{-4}$ | $9 \cdot 10^{-5}$ | $9 \cdot 10^{-4}$ |
| 210 | $5 \cdot 10^{-4}$ | $2 \cdot 10^{-4}$ | $6 \cdot 10^{-5}$ |
| 220 | 0,001 | $4 \cdot 10^{-4}$ | 0,001 |
| 230 | $8 \cdot 10^{-4}$ | 0,003 | $7 \cdot 10^{-4}$ |
| 240 | $6 \cdot 10^{-4}$ | 0,294 | $9 \cdot 10^{-4}$ |
| 250 | $2 \cdot 10^{-4}$ | 3,008 | $5 \cdot 10^{-4}$ |
| 260 | $1 \cdot 10^{-4}$ | 11,353 | $9 \cdot 10^{-5}$ |
| 270 | 0,001 | 27,735 | $4 \cdot 10^{-4}$ |
| 280 | $3 \cdot 10^{-4}$ | 48,600 | $7 \cdot 10^{-4}$ |
| 290 | $4 \cdot 10^{-4}$ | 65,270 | 0,027 |
| 300 | 0,001 | 75,251 | 1,487 |
| 310 | 0,022 | 80,908 | 13,305 |
| 320 | 1,655 | 84,059 | 39,036 |
| 330 | 12,339 | 85,922 | 63,554 |
| 340 | 31,542 | 86,984 | 77,626 |
| 350 | 49,576 | 88,614 | 85,092 |
| 360 | 61,722 | 89,224 | 87,853 |
| 370 | 68,663 | 89,329 | 88,384 |
| 380 | 72,422 | 88,878 | 87,362 |
| 390 | 74,933 | 88,375 | 87,614 |
| 400 | 73,308 | 86,607 | 85,456 |
| 410 | 69,229 | 83,541 | 81,939 |
| 420 | 63,243 | 79,053 | 77,135 |
| 430 | 54,408 | 73,052 | 70,620 |
| 440 | 44,539 | 65,554 | 63,075 |
| 450 | 32,698 | 55,497 | 53,605 |
| 460 | 20,492 | 43,365 | 42,165 |
| 470 | 8,574 | 29,061 | 27,388 |
| 480 | 2,187 | 16,517 | 14,209 |
| 490 | 0,378 | 8,320 | 6,261 |
| 500 | 0,068 | 4,287 | 2,880 |
| 510 | 0,006 | 2,258 | 1,036 |
| 520 | $4 \cdot 10^{-4}$ | 1,266 | 0,380 |
| 530 | $7 \cdot 10^{-5}$ | 0,742 | 0,162 |
| 540 | $7 \cdot 10^{-5}$ | 0,602 | 0,169 |
| 550 | $8 \cdot 10^{-4}$ | 0,820 | 0,413 |
| 560 | $8 \cdot 10^{-4}$ | 1,321 | 0,679 |
| 570 | $6 \cdot 10^{-4}$ | 1,001 | 0,306 |
| 580 | $9 \cdot 10^{-4}$ | 0,273 | 0,045 |
| 590 | $8 \cdot 10^{-4}$ | 0,043 | 0,007 |
| 600 | $9 \cdot 10^{-4}$ | 0,017 | 0,006 |
| 610 | $3 \cdot 10^{-4}$ | 0,016 | 0,011 |
| 620 | 0,001 | 0,021 | 0,014 |
| 630 | $6 \cdot 10^{-4}$ | 0,020 | 0,012 |
| 640 | $3 \cdot 10^{-4}$ | 0,016 | 0,009 |
| 650 | $5 \cdot 10^{-4}$ | 0,012 | 0,010 |
| 660 | $4 \cdot 10^{-4}$ | 0,017 | 0,028 |
| 670 | 0,001 | 0,042 | 0,150 |
| 680 | $6 \cdot 10^{-4}$ | 0,195 | 1,251 |
| 690 | 0,073 | 1,172 | 8,518 |

| Thickness (mm) | V 01<br>2 | V 02<br>1 | V 03<br>2 |
|---|---|---|---|
| Wavelength (nm) | %T | %T | %T |
| 700 | 0,848 | 5,887 | 29,130 |
| 710 | 2,773 | 19,487 | 54,365 |
| 720 | 4,585 | 40,494 | 72,514 |
| 730 | 5,532 | 60,250 | 82,311 |
| 740 | 5,843 | 74,233 | 86,949 |
| 750 | 5,859 | 82,652 | 88,824 |
| 760 | 5,789 | 87,101 | 89,469 |
| 770 | 5,717 | 89,262 | 89,652 |
| 780 | 5,688 | 90,232 | 89,611 |
| 790 | 5,704 | 90,665 | 89,595 |
| 800 | 5,792 | 90,686 | 89,425 |
| 810 | 5,886 | 90,658 | 89,215 |
| 820 | 6,009 | 90,592 | 88,963 |
| 830 | 6,166 | 90,502 | 88,715 |
| 840 | 6,370 | 90,376 | 88,471 |
| 850 | 6,621 | 90,295 | 88,228 |
| 900 | 8,304 | 89,286 | 86,650 |
| 950 | 10,605 | 87,420 | 84,143 |
| 1000 | 12,467 | 83,621 | 78,897 |
| 1050 | 12,065 | 76,341 | 68,410 |
| 1065 | 11,292 | 73,232 | 64,105 |
| 1100 | 8,641 | 64,290 | 52,483 |
| 1200 | 2,114 | 33,981 | 23,414 |
| 1300 | 1,437 | 19,243 | 17,880 |
| 1400 | 1,945 | 19,229 | 18,893 |
| 1500 | 1,164 | 16,306 | 14,235 |
| 1600 | 2,107 | 17,743 | 17,953 |
| 1700 | 2,288 | 19,478 | 18,318 |
| 1800 | 2,721 | 19,875 | 19,252 |
| 1900 | 6,403 | 27,083 | 27,530 |
| 2000 | 13,454 | 37,797 | 37,968 |
| 2100 | 21,481 | 46,203 | 46,697 |
| 2200 | 30,379 | 52,747 | 54,106 |
| 2300 | 39,821 | 60,006 | 61,220 |
| 2400 | 46,401 | 65,875 | 65,534 |
| 2500 | 48,638 | 68,837 | 66,389 |
| 2600 | 48,619 | 70,111 | 66,007 |
| 2700 | 46,606 | 65,190 | 63,002 |
| 2800 | 24,052 | 22,061 | 30,391 |
| 2900 | 22,111 | 24,906 | 27,798 |
| 3000 | 23,351 | 30,432 | 29,424 |