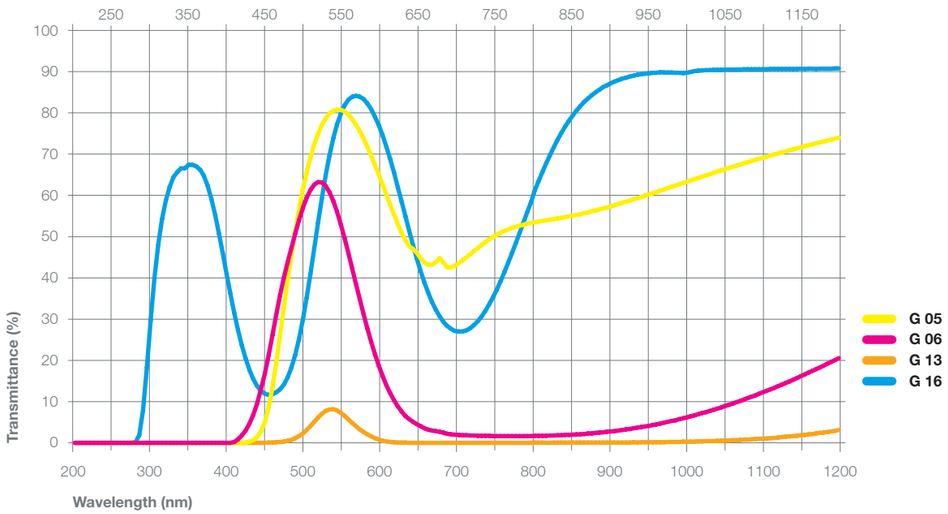
Glass Types

GREEN	**HEBO**	Schott	Hoya
	G 05	≈ VG 5	
	G 06	≈ VG 6	
	G 13		≈ G-545
	G 16		

Green 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					
G 05	1	0.455	0.477	73.4	0.362	0.476	73.5	1	2	1.547	104	458	526	2.85
G 06	2	0.377	0.543	40.9	0.299	0.536	44.8	1	2	1.547	104	458	526	2.85
G 13	2	0.352	0.568	15.2	0.284	0.554	16.9	1	3	1.527	98	597	663	2.53
G 16	2	0.484	0.476	74.0	0.405	0.483	70.2	6	5	1.535	100	421	463	2.84

Type		Bubbles	Striae	Stress
G 05		C-B	4	3
G 06		C-B	4	3
G 13		C-B	4	3
G 16		C-B	4	3



	G 05	G 06	G 13	G 16
Thickness (mm)	1	2	2	2
Wavelength (nm)	%T	%T	%T	%T
200	$5 \cdot 10^{-4}$	$4 \cdot 10^{-4}$	$1 \cdot 10^{-4}$	0,002
210	$1 \cdot 10^{-4}$	$5 \cdot 10^{-4}$	$1 \cdot 10^{-4}$	0,002
220	0,001	0,001	$8 \cdot 10^{-4}$	$6 \cdot 10^{-4}$
230	$4 \cdot 10^{-4}$	$7 \cdot 10^{-4}$	$1 \cdot 10^{-4}$	$1 \cdot 10^{-4}$
240	$7 \cdot 10^{-4}$	$2 \cdot 10^{-4}$	$8 \cdot 10^{-4}$	$7 \cdot 10^{-4}$
250	$5 \cdot 10^{-4}$	$3 \cdot 10^{-4}$	$2 \cdot 10^{-4}$	$1 \cdot 10^{-4}$
260	$1 \cdot 10^{-4}$	0,001	$2 \cdot 10^{-4}$	$2 \cdot 10^{-5}$
270	$5 \cdot 10^{-4}$	$3 \cdot 10^{-4}$	$5 \cdot 10^{-4}$	0,002
280	$1 \cdot 10^{-4}$	$4 \cdot 10^{-4}$	$1 \cdot 10^{-4}$	1,816
290	$4 \cdot 10^{-4}$	$2 \cdot 10^{-5}$	$4 \cdot 10^{-4}$	18,271
300	$5 \cdot 10^{-4}$	$8 \cdot 10^{-4}$	0,001	39,962
310	$3 \cdot 10^{-5}$	$4 \cdot 10^{-4}$	$2 \cdot 10^{-4}$	54,292
320	$7 \cdot 10^{-4}$	$3 \cdot 10^{-4}$	$1 \cdot 10^{-4}$	61,980
330	0,001	$4 \cdot 10^{-4}$	$3 \cdot 10^{-4}$	65,607
340	$4 \cdot 10^{-4}$	0,001	$4 \cdot 10^{-4}$	66,573
350	0,001	$2 \cdot 10^{-4}$	$8 \cdot 10^{-5}$	67,388
360	$3 \cdot 10^{-4}$	$2 \cdot 10^{-4}$	$2 \cdot 10^{-4}$	66,232
370	$2 \cdot 10^{-4}$	$3 \cdot 10^{-4}$	$2 \cdot 10^{-4}$	62,360
380	$3 \cdot 10^{-4}$	$6 \cdot 10^{-4}$	$3 \cdot 10^{-4}$	55,199
390	$1 \cdot 10^{-4}$	$<1 \cdot 10^{-5}$	0,001	45,892
400	$8 \cdot 10^{-4}$	0,035	$2 \cdot 10^{-4}$	36,136
410	0,004	0,830	$4 \cdot 10^{-5}$	27,367
420	0,097	3,011	0,003	20,447
430	0,609	6,738	0,007	15,530
440	2,689	12,816	0,015	12,644
450	8,567	21,286	0,039	11,629
460	19,440	31,126	0,115	12,227
470	32,813	40,027	0,312	14,117
480	45,501	47,277	0,736	18,269
490	56,639	54,010	1,608	25,220
500	65,557	59,395	3,088	35,158
510	72,342	62,594	5,069	47,143
520	77,060	63,114	7,011	59,267
530	79,806	60,796	8,088	69,627
540	80,812	56,030	7,847	77,158
550	80,349	49,579	6,523	81,861
560	78,446	42,228	4,811	83,880
570	75,575	34,773	3,275	83,920
580	71,781	27,708	2,044	82,307
590	67,358	21,452	1,110	79,029
600	62,641	16,234	0,521	74,554
610	57,767	12,029	0,222	68,790
620	53,057	8,847	0,093	62,029
630	49,105	6,551	0,043	54,986
640	46,957	5,112	0,027	47,995
650	44,757	4,010	0,017	41,703
660	43,221	3,214	0,012	36,407
670	43,779	2,800	0,012	32,282
680	43,764	2,460	0,013	29,362
690	42,505	2,054	0,010	27,615

	G 05	G 06	G 13	G 16
Thickness (mm)	1	2	2	2
Wavelength (nm)	%T	%T	%T	%T
700	43,589	1,907	0,011	26,971
710	44,992	1,813	0,011	27,290
720	46,494	1,752	0,013	28,538
730	47,976	1,708	0,014	30,645
740	49,331	1,676	0,016	33,567
750	50,443	1,654	0,017	37,156
760	51,392	1,637	0,018	41,365
770	52,128	1,628	0,017	45,986
780	52,640	1,622	0,020	50,864
790	53,154	1,633	0,020	55,888
800	53,512	1,680	0,045	61,148
810	53,815	1,701	0,042	65,604
820	54,122	1,745	0,034	69,763
830	54,412	1,807	0,042	73,473
840	54,727	1,889	0,036	76,690
850	55,082	1,985	0,050	79,399
900	57,329	2,755	0,062	87,171
950	60,220	4,138	0,123	89,595
1000	63,310	6,182	0,274	89,741
1050	66,330	8,895	0,555	90,480
1065	67,211	9,833	0,659	90,538
1100	69,132	12,246	1,027	90,584
1200	73,973	20,557	3,089	90,758
1300	77,805	30,199	7,154	90,837
1400	80,720	39,902	12,629	90,787
1500	83,019	48,763	18,870	90,118
1600	84,713	56,365	24,971	89,618
1700	85,899	62,567	29,933	88,132
1800	86,716	67,409	33,423	86,002
1900	87,211	71,133	36,106	84,155
2000	87,546	73,857	38,798	82,060
2100	87,644	76,012	41,946	80,282
2200	87,239	76,861	44,944	76,197
2300	87,139	77,643	48,569	72,110
2400	86,930	78,190	51,837	70,919
2500	86,352	78,133	54,282	66,895
2600	85,832	77,845	56,493	59,616
2700	83,836	76,017	56,687	52,758
2800	58,693	51,538	31,372	17,939
2900	56,141	43,140	30,218	1,182
3000	53,223	38,141	32,177	0,198

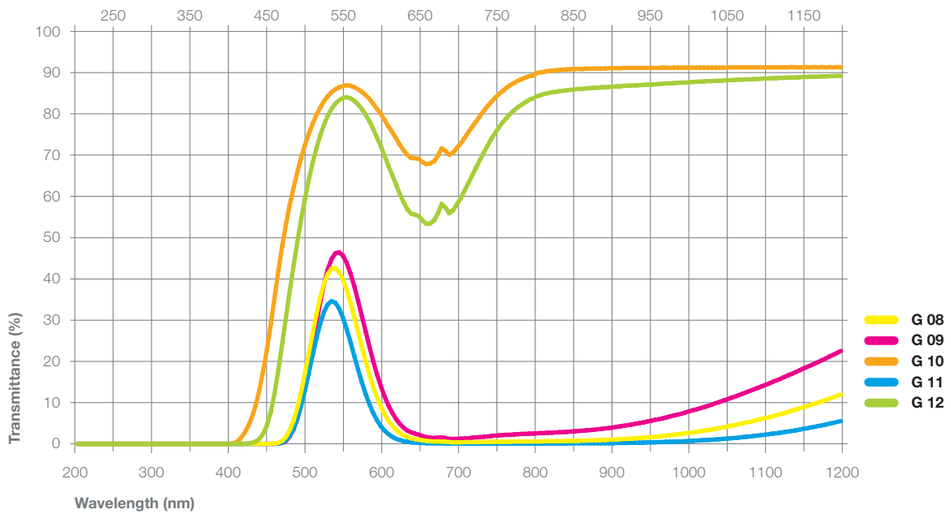
Glass Types

GREEN	HEBO	Schott	Hoya
	G 08	≈ VG 8	≈ G-533
	G 09	≈ VG 9	
	G 10	≈ VG 10	
	G 11	≈ VG 11	
	G 12		≈ G-550

Green 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					
G 08	2	0.360	0.603	25.6	0.308	0.629	28.4	1	2	1.547	104	458	526	2.85
G 09	2	0.328	0.593	24.6	0.268	0.586	28.2	1	3	1.524	96	535	599	2.52
G 10	2	0.462	0.452	86.7	0.353	0.429	85.2	1	2	1.547	104	458	526	2.85
G 11	2	0.250	0.669	9.7	0.216	0.658	11.9	1	2	1.524	96	535	599	2.52
G 12	2	0.472	0.477	79.2	0.383	0.495	77.6	1	3	1.547	104	458	526	2.85

Type		Bubbles	Striae	Stress
G 08		C-B	4	3
G 09		C-B	4	3
G 10		C-B	4	3
G 11		C-B	4	3
G 12		C-B	4	3



	G 08	G 09	G 10	G 11	G 12
Thickness (mm)	2	2	2	2	2
Wavelength (nm)	%T	%T	%T	%T	%T
200	$6 \cdot 10^{-5}$	$4 \cdot 10^{-4}$	0,001	$9 \cdot 10^{-5}$	0,001
210	$3 \cdot 10^{-4}$	$2 \cdot 10^{-4}$	0,001	$1 \cdot 10^{-4}$	0,001
220	0,002	$6 \cdot 10^{-4}$	0,001	0,001	$3 \cdot 10^{-4}$
230	$4 \cdot 10^{-4}$	$4 \cdot 10^{-4}$	0,003	$<1 \cdot 10^{-5}$	0,001
240	0,001	$3 \cdot 10^{-4}$	0,002	$4 \cdot 10^{-4}$	$6 \cdot 10^{-4}$
250	$6 \cdot 10^{-4}$	$1 \cdot 10^{-4}$	0,003	$2 \cdot 10^{-4}$	0,001
260	$3 \cdot 10^{-4}$	$4 \cdot 10^{-4}$	0,002	$3 \cdot 10^{-4}$	0,001
270	$1 \cdot 10^{-4}$	$4 \cdot 10^{-4}$	0,001	$1 \cdot 10^{-4}$	0,001
280	$1 \cdot 10^{-4}$	$1 \cdot 10^{-4}$	0,001	$5 \cdot 10^{-4}$	$1 \cdot 10^{-4}$
290	$7 \cdot 10^{-4}$	$6 \cdot 10^{-4}$	$3 \cdot 10^{-4}$	$3 \cdot 10^{-4}$	$3 \cdot 10^{-4}$
300	$2 \cdot 10^{-5}$	0,001	$8 \cdot 10^{-4}$	$5 \cdot 10^{-4}$	$8 \cdot 10^{-4}$
310	$2 \cdot 10^{-5}$	$4 \cdot 10^{-4}$	$7 \cdot 10^{-4}$	$7 \cdot 10^{-4}$	$7 \cdot 10^{-4}$
320	$7 \cdot 10^{-4}$	$2 \cdot 10^{-4}$	0,006	$7 \cdot 10^{-4}$	$1 \cdot 10^{-4}$
330	$3 \cdot 10^{-4}$	$6 \cdot 10^{-4}$	0,004	0,001	$5 \cdot 10^{-4}$
340	$2 \cdot 10^{-4}$	$6 \cdot 10^{-5}$	$1 \cdot 10^{-4}$	$3 \cdot 10^{-4}$	$6 \cdot 10^{-4}$
350	$7 \cdot 10^{-5}$	$<1 \cdot 10^{-5}$	0,001	$2 \cdot 10^{-4}$	$4 \cdot 10^{-4}$
360	$4 \cdot 10^{-4}$	$3 \cdot 10^{-4}$	$2 \cdot 10^{-4}$	$4 \cdot 10^{-4}$	$5 \cdot 10^{-4}$
370	$5 \cdot 10^{-5}$	$3 \cdot 10^{-4}$	$9 \cdot 10^{-4}$	$6 \cdot 10^{-4}$	$3 \cdot 10^{-5}$
380	$6 \cdot 10^{-4}$	$8 \cdot 10^{-4}$	$6 \cdot 10^{-4}$	$5 \cdot 10^{-4}$	$5 \cdot 10^{-5}$
390	$2 \cdot 10^{-4}$	$5 \cdot 10^{-4}$	$9 \cdot 10^{-4}$	$3 \cdot 10^{-4}$	$3 \cdot 10^{-5}$
400	$6 \cdot 10^{-4}$	$<1 \cdot 10^{-5}$	0,057	$2 \cdot 10^{-4}$	$4 \cdot 10^{-4}$
410	$3 \cdot 10^{-4}$	$<1 \cdot 10^{-5}$	1,179	$2 \cdot 10^{-4}$	0,003
420	$3 \cdot 10^{-4}$	$3 \cdot 10^{-4}$	4,055	$6 \cdot 10^{-4}$	0,081
430	$2 \cdot 10^{-4}$	0,001	9,024	$2 \cdot 10^{-4}$	0,516
440	$3 \cdot 10^{-4}$	0,001	17,338	$1 \cdot 10^{-4}$	2,354
450	0,013	0,001	28,994	0,002	7,707
460	0,254	0,058	41,930	0,089	17,897
470	1,704	0,735	53,231	0,881	30,699
480	5,621	3,466	62,076	3,602	43,127
490	12,643	9,567	69,387	9,186	54,456
500	21,849	18,718	75,186	17,074	63,987
510	31,326	29,205	79,703	25,450	71,614
520	38,808	38,663	83,035	31,958	77,343
530	42,423	44,804	85,258	34,573	81,235
540	41,647	46,442	86,496	32,831	83,342
550	37,272	43,861	86,955	27,815	84,026
560	30,682	38,187	86,467	21,290	83,170
570	23,441	30,993	85,330	14,895	81,181
580	16,722	23,506	83,625	9,562	78,188
590	11,180	16,799	81,164	5,685	74,209
600	7,126	11,415	78,481	3,182	69,796
610	4,373	7,496	75,519	1,701	65,121
620	2,639	4,853	72,478	0,891	60,558
630	1,629	3,211	70,019	0,479	56,842
640	1,156	2,466	69,214	0,303	55,576
650	0,815	1,871	68,270	0,189	54,058
660	0,608	1,501	67,931	0,128	53,408
670	0,553	1,483	69,834	0,107	55,814
680	0,494	1,408	71,004	0,090	57,271
690	0,387	1,175	70,620	0,064	56,596

	G 08	G 09	G 10	G 11	G 12
Thickness (mm)	2	2	2	2	2
Wavelength (nm)	%T	%T	%T	%T	%T
700	0,385	1,249	72,924	0,062	59,684
710	0,401	1,381	75,594	0,062	63,262
720	0,424	1,536	78,189	0,064	66,983
730	0,452	1,711	80,695	0,067	70,594
740	0,478	1,880	82,953	0,070	73,932
750	0,500	2,036	84,811	0,071	76,726
760	0,518	2,170	86,317	0,074	79,027
770	0,534	2,285	87,524	0,074	80,872
780	0,549	2,386	88,425	0,078	82,225
790	0,563	2,463	89,133	0,079	83,381
800	0,595	2,570	89,907	0,090	84,277
810	0,605	2,648	90,231	0,089	84,815
820	0,612	2,724	90,479	0,098	85,231
830	0,653	2,800	90,638	0,100	85,532
840	0,677	2,905	90,778	0,100	85,758
850	0,729	3,049	90,833	0,124	85,944
900	1,013	3,972	91,061	0,170	86,586
950	1,651	5,573	91,143	0,347	87,124
1000	2,665	7,850	91,181	0,683	87,649
1050	4,186	10,775	91,243	1,270	88,143
1065	4,729	11,751	91,250	1,505	88,286
1100	6,233	14,256	91,266	2,219	88,565
1200	11,966	22,506	91,316	5,502	89,219
1300	19,505	31,639	91,344	10,843	89,725
1400	27,895	40,567	91,248	17,856	89,976
1500	36,409	48,817	91,351	25,818	90,314
1600	44,363	55,928	91,309	33,935	90,488
1700	51,367	61,824	91,114	41,635	90,413
1800	57,312	66,549	90,763	48,491	90,120
1900	62,214	70,285	90,378	54,418	89,766
2000	66,082	73,082	89,861	59,320	89,260
2100	69,035	75,146	89,231	63,241	88,592
2200	70,798	76,091	88,027	66,047	87,245
2300	72,622	77,195	87,360	68,668	86,543
2400	73,837	77,866	86,610	70,600	85,737
2500	74,207	77,789	85,431	71,699	84,412
2600	74,514	77,698	84,450	72,638	83,339
2700	71,774	75,022	81,246	70,903	79,835
2800	32,187	39,219	48,317	34,620	43,695
2900	29,680	35,626	45,028	32,142	40,385
3000	26,888	32,141	41,196	29,304	36,741