

n_e 1.628472	v_e 33.67	$n_{F'} - n_{C'}$ 0.017621
n_d 1.624352	v_d 35.93	$n_F - n_C$ 0.017380

Class of bubbles	Viscosity temperature				
	η [Poise]	$10^{14.5}$	10^{13}	10^{10}	10^8
2	t [°C]	420	460	545	620

Relative partial dispersion deviations from the 'Normal Line'				
	$i - F'$	$g - F'$	$F' - e$	$F' - r$
ΔP	+0.001	-0.0006	-0.0004	-0.0006
Δv_e	+0.1	-0.4	-0.8	+0.8
	$i - F$	$g - F$	$F - e$	$F - r$
ΔP	+0.001	-0.0006	-0.0004	-0.0006
Δv_d	+1.3	-0.3	-0.8	+1.0

Stress optical coefficient B [$\text{nm}\cdot\text{cm}^{-1} / \text{kp}\cdot\text{cm}^{-2}$], $\lambda=550\text{nm}$	Thermal conductivity			
	-50°C	0°C	+20°C	+50°C
3.00	-	-	0.67	-

Young's modulus E [$\text{kp}\cdot\text{mm}^{-2}$]	Shear modulus G [$\text{kp}\cdot\text{mm}^{-2}$]	Coefficient of linear thermal expansion $\alpha_{20/t}$ 10^7 [°C]	Chemical resistance	
			Stain resistance	Group
5640	2308			I
Poisson's ratio μ	Density ρ [$\text{g}\cdot\text{cm}^{-3}$]	+20 ÷ -60°C	+20 ÷ +120°C	Weather resistance
		73	76	
0.222	3.67			A

Optical density increment on irradiation		
Initial density D_0 [cm^{-1}]	Radiation dose [R]	Optical density increment ΔD [cm^{-1}]
0.052	$1 \cdot 10^4$	0.130
	$1 \cdot 10^5$	0.70

Refractive indices		
λ [nm]	n	
312.6	-	-
334.1	-	-
365.0	i	1.67162
404.66	h	1.65559
435.83	g	1.646779
479.99	F'	1.637672
486.13	F	1.636632
546.07	e	1.628472
587.56	d	1.624352
589.29	D	1.624200
643.85	C'	1.620051
656.27	C	1.619252
706.52	r	1.61645
768.2	-	1.61370
852.1	-	1.61081
1013.9	-	1.60684
1128.6	-	1.60473
1395.1	-	1.60083
1529.6	-	1.59909
1813.1	-	1.59551
1970.1	-	1.59347
2249.3	-	1.58960
2325.4	-	1.58848

Dispersion coefficients	
$v_h = \frac{n_h - 1}{n_i - n_g}$	26.4
$v_e = \frac{n_e - 1}{n_{F'} - n_{C'}}$	33.67
$v_d = \frac{n_d - 1}{n_F - n_C}$	35.93
$v_D = \frac{n_D - 1}{n_F - n_C}$	35.91
$v_{1529.6} = \frac{n_{1529.6} - 1}{n_{1013.9} - n_{2249.3}}$	34.8

Relative partial dispersions		
Δn	$\frac{\Delta n}{n_{F'} - n_{C'}}$	$\frac{\Delta n}{n_F - n_C}$
312.6 - 334.1	-	-
334.1 - i	-	-
i - h	0.910	0.922
h - g	0.5000	0.5070
g - F	0.5758	0.5838
g - F'	0.5168	0.5240
F - e	0.4631	0.4695
F - D	0.7055	0.7153
F' - e	0.5221	0.5294
d - D	0.0086	0.0087
D - C	0.2808	0.2847
e - C'	0.4779	0.4845
e - C	0.5232	0.5305
C' - r	0.204	0.207
C - r	0.159	0.161
r - 852.1	0.320	0.324
852.1 - 1013.9	0.226	0.229
1013.9 - 1128.6	0.120	0.121
1128.6 - 1395.1	0.221	0.224
1395.1 - 1529.6	0.099	0.100
1529.6 - 1813.1	0.203	0.206
1813.1 - 1970.1	0.116	0.117
1970.1 - 2249.3	0.220	0.223
2249.3 - 2325.4	0.064	0.065

Internal transmittance		
λ [nm]	τ_i (s=10mm)	τ_i (s=25mm)
280	-	-
300	-	-
320	-	-
340	-	-
360	-	-
380	0.890	0.747
400	0.962	0.908
420	0.971	0.929
440	0.980	0.951
460	0.986	0.966
480	0.989	0.972
500	0.992	0.980
520	0.994	0.985
540	0.995	0.987
560	0.995	0.987
580	0.995	0.987
600	0.994	0.985
620	0.993	0.983
640	0.992	0.980
660	0.992	0.980
680	0.994	0.985
700	0.995	0.987
750	0.997	0.993
800	0.998	0.995
900	0.998	0.995
1000	0.998	0.995
1050	0.998	0.995
1100	0.997	0.993
1200	-	-
1300	-	-
1400	-	-
1500	-	-

Refractive indices at laser wavelengths	
λ [nm]	n
350.7	-
356.4	-
488.0	1.63632
514.0	1.63243
520.8	1.63152
530.0	1.63035
568.2	1.62615
632.8	1.62081
647.1	1.61985
694.3	1.61708
890.0	1.60973
1060.0	1.60594

Radiation resistant analogue glass type-

F104