

n_e 1.615506	v_e 60.33	$n_{F'} - n_{C'}$ 0.010203
n_d 1.613091	v_d 60.58	$n_F - n_C$ 0.010120

Class of bubbles	Viscosity temperature				
	η [Poise]	$10^{14.5}$	10^{13}	10^{10}	10^8
1	t [°C]	595	640	685	730

Relative partial dispersion deviations from the 'Normal Line'				
	$i - F'$	$g - F'$	$F' - e$	$F' - r$
ΔP	-0.009	-0.0002	+0.0008	-0.0023
Δv_e	-0.9	-0.2	+1.3	+3.2
	$i - F$	$g - F$	$F - e$	$F - r$
ΔP	-0.007	+0.0004	+0.0009	-0.0017
Δv_d	-0.7	+0.2	+1.6	+3.1

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
1.85	-	-	-	-

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	
8700	3450			III	
Poisson's ratio μ	Density ρ [$\text{g} \cdot \text{cm}^{-3}$]	+20 ÷ -60°C	+20 ÷ +120°C	Weather resistance	
		63	69	Group	A
0.261	3.51				

Optical density increment on irradiation		
Initial density D_0 [cm^{-1}]	Radiation dose [R]	Optical density increment ΔD [cm^{-1}]
0.050	$1 \cdot 10^4$	0.040
	$1 \cdot 10^5$	0.30

Refractive indices		
λ [nm]	n	
312.6	-	-
334.1	-	-
365.0	i	1.63791
404.66	h	1.63016
435.83	g	1.625606
479.99	F'	1.620702
486.13	F	1.620127
546.07	e	1.615506
587.56	d	1.613091
589.29	D	1.613000
643.85	C'	1.610499
656.27	C	1.610007
706.52	r	1.60825
768.2	-	1.60647
852.1	-	1.60451
1013.9	-	1.60161
1128.6	-	1.59991
1395.1	-	1.59638
1529.6	-	1.59464
1813.1	-	1.59080
1970.1	-	1.58851
2249.3	-	1.58403
2325.4	-	1.58271

Dispersion coefficients	
$v_h = \frac{n_h - 1}{n_i - n_g}$	51.2
$v_e = \frac{n_e - 1}{n_{F'} - n_{C'}}$	60.33
$v_d = \frac{n_d - 1}{n_F - n_C}$	60.58
$v_D = \frac{n_D - 1}{n_F - n_C}$	60.57
$v_{1529.6} = \frac{n_{1529.6} - 1}{n_{1013.9} - n_{2249.3}}$	33.8

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	0.760	0.766
h - g	0.4464	0.4495
g - F	0.5370	0.5414
g - F'	0.4807	0.4846
F - e	0.4529	0.4566
F - D	0.6985	0.7042
F' - e	0.5093	0.5134
d - D	0.0089	0.0090
D - C	0.2934	0.2958
e - C'	0.4907	0.4948
e - C	0.5390	0.5434
C' - r	0.221	0.223
C - r	0.173	0.174
r - 852.1	0.366	0.369
852.1 - 1013.9	0.285	0.287
1013.9 - 1128.6	0.166	0.168
1128.6 - 1395.1	0.345	0.348
1395.1 - 1529.6	0.171	0.172
1529.6 - 1813.1	0.376	0.379
1813.1 - 1970.1	0.225	0.227
1970.1 - 2249.3	0.439	0.443
2249.3 - 2325.4	0.129	0.130

Internal transmittance		
λ [nm]	τ_i (s=10mm)	τ_i (s=25mm)
280	-	-
300	-	-
320	0.056	-
340	0.406	0.106
360	0.763	0.508
380	0.923	0.819
400	0.965	0.915
420	0.980	0.951
440	0.983	0.958
460	0.986	0.966
480	0.990	0.975
500	0.996	0.990
520	0.995	0.987
540	0.995	0.987
560	0.996	0.990
580	0.995	0.987
600	0.995	0.987
620	0.994	0.985
640	0.994	0.985
660	0.994	0.985
680	0.994	0.985
700	0.994	0.985
750	0.994	0.985
800	0.993	0.983
900	0.991	0.978
1000	0.990	0.975
1050	0.990	0.975
1100	0.990	0.975
1200	0.991	0.978
1300	0.991	0.978
1400	0.990	0.975
1500	0.990	0.975

Refractive indices at laser wavelengths	
λ [nm]	n
350.7	-
356.4	-
488.0	1.61996
514.0	1.61778
520.8	1.61726
530.0	1.61659
568.2	1.61416
632.8	1.61096
647.1	1.61037
694.3	1.60864
890.0	1.60375
1060.0	1.60090

Radiation resistant analogue glass type-

TK114