

<b>n<sub>e</sub> 1.747646</b>	<b>v<sub>e</sub> 50.20</b>	<b>n<sub>F'</sub> - n<sub>C'</sub> 0.014892</b>
<b>n<sub>d</sub> 1.744132</b>	<b>v<sub>d</sub> 50.42</b>	<b>n<sub>F'</sub> - n<sub>C'</sub> 0.014756</b>

Class of bubbles	Viscosity temperature				
	$\eta$ [Poise]	10 <sup>14.5</sup>	10 <sup>13</sup>	10 <sup>10</sup>	10 <sup>8</sup>
2	t [°C]	595	625	670	705

Relative partial dispersion deviations from the 'Normal Line'			
	i - F'	g - F'	F' - e
$\Delta P$	-0.052	-0.0082	-0.0024
$\Delta v_e$	-5.6	-5.6	-4.3
	i - F	g - F	F - e
$\Delta P$	-0.0055	-0.0094	-0.0024
$\Delta v_d$	-5.5	-5.4	-4.1
	F - r		
	-0.0015		
	-2.7		

Stress optical coefficient B [nm·cm <sup>-1</sup> / kp·cm <sup>-2</sup> ], $\lambda=550\text{nm}$	Thermal conductivity			
	-50°C	0°C	+20°C	+50°C
1.95	-	-	-	-

Young's modulus E [kp · mm <sup>-2</sup> ]	Shear modulus G [kp·mm <sup>-2</sup> ]	Coefficient of linear thermal expansion $\alpha_{20/t} \cdot 10^7$ [°C]	Chemical resistance
			Stain resistance
11770	4541		Group IV
Poisson's ratio $\mu$	Density $\rho$ [g · cm <sup>-3</sup> ]	+20 ÷ -60°C	+20 ÷ +120°C
0.296	4.09	51	59
		<b>Group A</b>	

Refractive indices	
$\lambda$ [nm]	n
312.6	-
334.1	-
365.0	i 1.78115
404.66	h 1.769291
435.83	g 1.762531
479.99	F' 1.755269
486.13	F 1.754423
546.07	e 1.747647
587.56	d 1.744132
589.29	D 1.744000
643.85	C' 1.740377
656.27	C 1.739667
706.52	r 1.73714
768.2	- 1.73461
852.1	- 1.73185
1013.9	- 1.72784
1128.6	- 1.72555
1395.1	- 1.72092
1529.6	- 1.71868
1813.1	- 1.71379
1970.1	- 1.71086
2249.3	- 1.70512
2325.4	- 1.70342

Dispersion coefficients	
$v_h = \frac{n_h - 1}{n_i - n_g}$	41.3
$v_e = \frac{n_e - 1}{n_F' - n_C'}$	50.20
$v_d = \frac{n_d - 1}{n_F - n_C}$	50.43
$v_D = \frac{n_D - 1}{n_F - n_C}$	50.42
$v_{1529.6} = \frac{n_{1529.6} - 1}{n_{1013.9} - n_{2249.3}}$	31.6

Internal transmittance		
$\lambda$ [nm]	$\tau_i$ (s=10mm)	$\tau_i$ (s=25mm)
280	-	-
300	0.04	-
320	0.177	0.013
340	0.490	0.168
360	0.764	0.510
380	0.902	0.773
400	0.954	0.889
420	0.976	0.919
440	0.973	0.934
460	0.979	0.948
480	0.986	0.966
500	0.991	0.978
520	0.993	0.983
540	0.995	0.987
560	0.996	0.990
580	0.995	0.987
600	0.996	0.990
620	0.996	0.990
640	0.996	0.990
660	0.996	0.990
680	0.996	0.990
700	0.996	0.990
750	0.996	0.990
800	0.996	0.990
900	0.997	0.993
1000	0.998	0.995
1050	0.998	0.995
1100	0.999	0.998
1200	0.999	0.998
1300	0.999	0.998
1400	0.999	0.998
1500	0.998	0.985

Refractive indices at laser wavelengths	
$\lambda$ [nm]	n
350.7	-
356.4	-
488.0	1.75417
514.0	1.75097
520.8	1.75021
530.0	1.74924
568.2	1.74568
632.8	1.74104
647.1	1.74019
694.3	1.73771
890.0	1.73079
1060.0	1.72688

$\Delta n$	$\frac{\Delta n}{n_{F'} - n_{C'}}$	$\frac{\Delta n}{n_F - n_C}$
312.6 – 334.1	-	-
334.1 – i	-	-
i – h	0.796	0.8034
h – g	0.4539	0.4582
g – F'	0.5444	0.5495
F – e	0.4876	0.4921
F – D	0.4550	0.4592
F’ – e	0.6999	0.7064
d – D	0.5118	0.5165
D – C	0.0089	0.0089
e – C'	0.2910	0.2937
e – C	0.4882	0.4927
C’ – r	0.5358	0.5408
C – r	0.217	0.219
r – 852.1	0.170	0.171
852.1 – 1013.9	0.355	0.359
1013.9 – 1128.6	0.270	0.272
1128.6 – 1395.1	0.154	0.155
1395.1 – 1529.6	0.310	0.313
1529.6 – 1813.1	0.150	0.152
1813.1 – 2249.3	0.329	0.332
2249.3 – 2325.4	0.197	0.198
2249.3 – 2325.4	0.386	0.389
2325.4 – 2325.4	0.114	0.115

Radiation resistant analogue glass type-  
**CTK119**