

Refractive Index n_d	1,58913 1,589130	Abbe Number v_d	60,95	Dispersion $n_F - n_C$	0,00966 0,009665
Refractive Index n_e	1,591435	Abbe Number v_e	60,71	Dispersion $n_{F'} - n_{C'}$	0,009742

Refractive Indices		
	λ (μm)	
n_{2325}	2.32542	1,55945
n_{1970}	1.97009	1,56522
n_{1530}	1.52958	1,57129
n_{1129}	1.12864	1,57645
n_t	1.01398	1,57810
n_s	0.85211	1,58091
$n_{A'}$	0.76819	1,58279
n_r	0.70652	1,58449
n_C	0.65627	1,58618
$n_{C'}$	0.64385	1,58665
$n_{\text{He-Ne}}$	0.6328	1,58709
n_D	0.58929	1,58904
n_d	0.58756	1,58913
n_e	0.54607	1,59144
n_F	0.48613	1,59584
$n_{F'}$	0.47999	1,59639
$n_{\text{He-Cd}}$	0.44157	1,60038
n_g	0.435835	1,60108
n_h	0.404656	1,60542
n_i	0.365015	
n_{334}	0.334148	
n_{326}	0.326106	

Partial Dispersions	
$n_C - n_t$	0,008082
$n_C - n_{A'}$	0,003392
$n_d - n_C$	0,002950
$n_e - n_C$	0,005255
$n_g - n_d$	0,011947
$n_g - n_F$	0,005232
$n_h - n_g$	0,004339
$n_i - n_g$	
$n_{C'} - n_t$	0,008553
$n_e - n_{C'}$	0,004784
$n_{F'} - n_e$	0,004958
$n_i - n_{F'}$	

Relative Partial Dispersions	
$\theta_{C,t}$	0,8362
$\theta_{C,A'}$	0,3510
$\theta_{d,C}$	0,3052
$\theta_{e,C}$	0,5437
$\theta_{g,d}$	1,2361
$\theta_{g,F}$	0,5413
$\theta_{h,g}$	0,4489
$\theta_{i,g}$	
$\theta'_{C',t}$	0,8780
$\theta'_{e,C'}$	0,4911
$\theta'_{F',e}$	0,5089
$\theta'_{i,F'}$	

Deviation of Relative Partial Dispersions	
$\Delta\theta_{C,t}$	0,0035
$\Delta\theta_{C,A'}$	0,0012
$\Delta\theta_{g,d}$	-0,0020
$\Delta\theta_{g,F}$	-0,0016
$\Delta\theta_{i,g}$	

Other Properties		
Bubble Quality Group	B	
Specific Gravity	d	3,30
Coloring	$\lambda_{80} / \lambda_{70}$	450
	λ_5	385

Constants of Dispersion Formula	
326 ~ 1129 nm	
A_1	1,31152698
A_2	$1,75893826 \cdot 10^{-1}$
A_3	1,06786914
B_1	$7,06993329 \cdot 10^{-3}$
B_2	$2,54908228 \cdot 10^{-2}$
B_3	$1,04810750 \cdot 10^2$
1129 ~ 2325 nm	
A_1	
A_2	
A_3	
B_1	
B_2	
B_3	

Internal Transmittance		
λ (nm)	τ i 10 mm	τ i 25 mm
280		
290		
300		
310		
320		
330		
340		
350		
360		
365		
370		
380	0,030	
390	0,130	
400	0,300	
420	0,650	
440	0,840	
460	0,915	
480	0,944	
500	0,958	
550	0,973	
600	0,980	
650	0,985	
700	0,991	
800	0,996	
900	0,997	
1000	0,998	
1200	0,999	
1400	0,988	
1600	0,996	
1800	0,989	
2000	0,977	
2200	0,918	
2400	0,810	

Thermal Properties		
Strain Point	StP	617
Annealing Point	AP	648
Transformation Temperature	Tg	663
Yield Point	At	702
Softening Point	SP	765
Expansion Coefficient α ($10^{-7} / ^\circ\text{C}$)	(-30~+70°C)	55
	(+100~+300°C)	67
Thermal Conductivity (W/m·K)	k	0,914

Mechanical Properties		
Young's Modulus (10^9N/m^2)	E	830
Rigidity Modulus (10^9N/m^2)	G	331
Poisson's Ratio	σ	0,255
Knoop Hardness	Hk	620 [6]
Abrasion	Aa	109
Photoelastic Constant (nm/cm/10 ⁵ Pa)	β	2,19

Chemical Properties		
Water Resistance (Powder) Group	RW(P)	2
Acid Resistance (Powder) Group	RA(P)	4
Weathering Resistance (Surface) Group	W(S)	3
Acid Resistance (Surface) Group	SR	4,3
Phosphate Resistance	PR	1,0

Temperature Coefficients of Refractive Index								
Range of Temperature (°C)	dn / dt relative ($10^6 / ^\circ\text{C}$)							
	t	C'	He-Ne	D	e	F'	g	i
-40 ~ -20	3,1	3,5	3,5	3,6	3,7	4,0	4,2	
-20 ~ 0	3,1	3,4	3,5	3,6	3,7	4,0	4,3	
0 ~ 20	3,1	3,5	3,5	3,6	3,7	4,0	4,3	
20 ~ 40	3,2	3,5	3,5	3,7	3,8	4,1	4,4	
40 ~ 60	3,2	3,6	3,6	3,8	3,9	4,2	4,5	
60 ~ 80	3,4	3,8	3,8	3,9	4,1	4,4	4,7	