

Refractive Index	n_d	1.58913 1.589130	Abbe Number	V_d	61.23 60.99	Dispersion	$\frac{n_F - n_C}{n_F' - n_C'}$	0.00962 0.009621 0.009697
		n_e		1.591426			V_e	

Refractive Indices		
	λ (μm)	
n_{2325}	2.32542	1.55937
n_{1970}	1.97009	1.56517
n_{1530}	1.52958	1.57128
n_{1129}	1.12864	1.57646
n_t	1.01398	1.57811
n_s	0.85211	1.58093
$n_{A'}$	0.76819	1.58280
n_r	0.70652	1.58451
n_c	0.65627	1.58619
$n_{c'}$	0.64385	1.58666
$n_{\text{He-Ne}}$	0.6328	1.58710
n_D	0.58929	1.58904
n_d	0.58756	1.58913
n_e	0.54607	1.59143
n_F	0.48613	1.59581
$n_{F'}$	0.47999	1.59636
$n_{\text{He-Cd}}$	0.44157	1.60032
n_g	0.435835	1.60100
n_h	0.404656	1.60530
n_i	0.365015	1.61261
n_{334}	0.334148	1.62045
n_{326}	0.326106	1.62293

Thermal Properties		
Strain Point ($^{\circ}\text{C}$)	StP	
Annealing Point ($^{\circ}\text{C}$)	AP	
Transformation Temperature ($^{\circ}\text{C}$)	Tg	590
Yield Point ($^{\circ}\text{C}$)	At	628
Softening Point ($^{\circ}\text{C}$)	SP	697
Expansion Coefficient (α)		
	(-30~+70 $^{\circ}\text{C}$)	57
	(+100~+300 $^{\circ}\text{C}$)	72
Thermal Conductivity (W/m·K)	k	0.991

Mechanical Properties		
Young's Modulus (108N/m ²)	E	881
Rigidity Modulus (108N/m ²)	G	354
Poisson's Ratio	σ	0.244
Knoop Hardness	Hk	550 [6]
Abrasion	Aa	118
Photoelastic Constant (nm/cm/10 ⁵ Pa)	β	

Partial Dispersions	
$n_c - n_t$	0.008076
$n_c - n_{A'}$	0.003385
$n_d - n_c$	0.002940
$n_e - n_c$	0.005236
$n_g - n_d$	0.011874
$n_g - n_F$	0.005193
$n_h - n_g$	0.004298
$n_i - n_g$	0.011602
$n_{c'} - n_t$	0.008545
$n_e - n_{c'}$	0.004767
$n_{F'} - n_e$	0.004930
$n_i - n_{F'}$	0.016250

Deviation of Relative Partial Dispersions	
$\Delta\theta_{c,t}$	0.0054
$\Delta\theta_{c,A'}$	0.0017
$\Delta\theta_{g,d}$	-0.0034
$\Delta\theta_{g,F}$	-0.0026
$\Delta\theta_{i,g}$	-0.0064

Constants of Dispersion Formula		
326 ~ 1129 nm		
A 1	1.26231429	
A 2	2.25154210	E-1
A 3	6.39119345	E-1
B 1	6.95586355	E-3
B 2	2.21310699	E-2
B 3	6.31662736	E1
1129 ~ 2325 nm		
A 1	1.09972335	
A 2	3.87872537	E-1
A 3	1.11247378	E-1
B 1	5.82303457	E-3
B 2	1.88745144	E-2
B 3	1.08214962	E2

Chemical Properties		
Water Resistance (Powder Group)	RW(P)	2
Acid Resistance (Powder Group)	RA(P)	3
Weathering Resistance (Surface Group)	W(S)	2~3
Acid Resistance (Surface Group)	SR	4.2
Phosphate Resistance	PR	1.0

Relative Partial Dispersions	
$\theta_{c,t}$	0.8394
$\theta_{c,A'}$	0.3518
$\theta_{d,c}$	0.3056
$\theta_{e,c}$	0.5442
$\theta_{g,d}$	1.2342
$\theta_{g,F}$	0.5398
$\theta_{h,g}$	0.4467
$\theta_{i,g}$	1.2059
$\theta'_{c,t}$	0.8812
$\theta'_{e,c'}$	0.4916
$\theta'_{F',e}$	0.5084
$\theta'_{i,F'}$	1.6758

Internal Transmittance			
λ_{80}		λ_5	

CCI		
B	G	R

Internal Transmittance		
λ (nm)	$\tau_{i10\text{ mm}}$	$\tau_{i25\text{ mm}}$
280		
290	0.110	
300	0.500	0.170
310	0.790	0.560
320	0.920	0.810
330	0.966	0.918
340	0.984	0.960
350	0.991	0.978
360	0.994	0.986
365	0.996	0.990
370	0.996	0.991
380	0.997	0.993
390	0.998	0.995
400	0.998	0.996
420	0.999	0.997
440	0.999	0.997
460	0.999	0.997
480	0.999	0.998
500	0.999	0.998
550	0.999	0.998
600	0.999	0.998
650	0.999	0.998
700	0.999	0.998
800	0.999	0.998
900	0.999	0.997
1000	0.997	0.993
1200	0.997	0.993
1400	0.985	0.963
1600	0.993	0.982
1800	0.986	0.966
2000	0.973	0.934
2200	0.904	0.770
2400	0.820	0.610

Other Properties									
Bubble Quality Group	B		Coloring	$\lambda_{80}/\lambda_{70}$	32				
Specific Gravity	d	3.23		λ_5	29				
Temperature Coefficients of Refractive Index									
Range of Temperature ($^{\circ}\text{C}$)	dn / dT relative ($10^{-6}/^{\circ}\text{C}$)								
	t	C'	He-Ne	D	e	F'	g	i	
-40 ~ -20	3.2	3.4	3.4	3.5	3.7	3.9	4.2	4.9	
-20 ~ 0	3.2	3.5	3.5	3.6	3.8	4.0	4.3	5.0	
0 ~ 20	3.3	3.6	3.6	3.7	3.9	4.2	4.4	5.2	
20 ~ 40	3.3	3.7	3.7	3.9	4.0	4.3	4.6	5.4	
40 ~ 60	3.4	3.8	3.8	4.0	4.1	4.4	4.7	5.6	
60 ~ 80	3.5	3.9	3.9	4.1	4.2	4.5	4.9	5.7	