

Refractive Index $n_d$	<b>1.51633</b> 1.516330	Abbe Number $\nu_d$	<b>64.1</b> 64.14	Dispersion $n_F - n_C$	<b>0.00805</b> 0.008050
Refractive Index $n_e$	1.518251	Abbe Number $\nu_e$	63.93	Dispersion $n_{F'} - n_{C'}$	0.008107

Refractive Indices		
	$\lambda$ ( $\mu\text{m}$ )	
$n_{2325}$	2.32542	1.48899
$n_{1970}$	1.97009	1.49462
$n_{1530}$	1.52958	1.50050
$n_{1129}$	1.12864	1.50536
$n_t$	1.01398	1.50686
$n_s$	0.85211	1.50935
$n_{A'}$	0.76819	1.51097
$n_r$	0.70652	1.51243
$n_C$	0.65627	<b>1.51386</b>
$n_{C'}$	0.64385	1.51425
$n_{\text{He-Ne}}$	0.6328	1.51462
$n_D$	0.58929	1.51626
$n_d$	0.58756	<b>1.51633</b>
$n_e$	0.54607	1.51825
$n_F$	0.48613	<b>1.52191</b>
$n_{F'}$	0.47999	1.52236
$n_{\text{He-Cd}}$	0.44157	1.52564
$n_g$	0.435835	<b>1.52621</b>
$n_h$	0.404656	1.52977
$n_i$	0.365015	1.53578

Deviation of Relative Partial Dispersions $\Delta\theta$ from "Normal"	
$\Delta\theta_{C,t}$	0.0211
$\Delta\theta_{C,A'}$	0.0044
$\Delta\theta_{g,d}$	-0.0037
$\Delta\theta_{g,F}$	-0.0024
$\Delta\theta_{i,g}$	0.0010

Constants of Dispersion Formula	
$A_1$	1.15150190
$A_2$	$1.18583612 \cdot 10^{-1}$
$A_3$	1.26301359
$B_1$	$1.05984130 \cdot 10^{-2}$
$B_2$	$-1.18225190 \cdot 10^{-2}$
$B_3$	$1.29617662 \cdot 10^2$

Other Properties	
Bubble Quality Group B	
Specific Gravity d	2.52
Remarks	

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
-40 ~ -20	2.1	2.3	2.3	2.4	2.5	2.7	3.0
-20 ~ 0	2.1	2.4	2.4	2.5	2.6	2.8	3.1
0 ~ 20	2.2	2.5	2.5	2.6	2.7	3.0	3.2
20 ~ 40	2.2	2.6	2.6	2.7	2.8	3.1	3.3
40 ~ 60	2.3	2.6	2.7	2.8	2.9	3.2	3.5
60 ~ 80	2.4	2.7	2.7	2.9	3.0	3.3	3.6

Partial Dispersions	
$n_C - n_t$	0.006993
$n_C - n_{A'}$	0.002882
$n_d - n_C$	0.002475
$n_e - n_C$	0.004396
$n_g - n_d$	0.009884
$n_g - n_F$	0.004309
$n_h - n_g$	0.003554
$n_i - n_g$	0.009571
$n_{C'} - n_t$	0.007389
$n_e - n_{C'}$	0.004000
$n_{F'} - n_e$	0.004107
$n_i - n_{F'}$	0.013427

Thermal Properties		
Strain Point StP ( $^{\circ}\text{C}$ )		532
Annealing Point AP ( $^{\circ}\text{C}$ )		563
Transformation Temperature Tg ( $^{\circ}\text{C}$ )		576
Yield Point At ( $^{\circ}\text{C}$ )		625
Softening Point SP ( $^{\circ}\text{C}$ )		718
Expansion Coefficients ( $-30 \sim +70^{\circ}\text{C}$ )		72
$\alpha$ ( $10^{-7}/^{\circ}\text{C}$ ) ( $+100 \sim +300^{\circ}\text{C}$ )		86
Thermal Conductivity k ( $\text{W}/\text{m}\cdot\text{K}$ )		1.130

Mechanical Properties		
Young's Modulus E ( $10^9\text{N}/\text{m}^2$ )		800
Rigidity Modulus G ( $10^9\text{N}/\text{m}^2$ )		332
Poisson's Ratio $\sigma$		0.205
Knoop Hardness Hk		570[6]
Abrasion Aa		94
Photoelastic Constant $\beta$ ( $\text{nm}/\text{cm}/10^5\text{Pa}$ )		2.79

Chemical Properties	
Water Resistance (Powder) Group RW(P)	2
Acid Resistance (Powder) Group RA(P)	1
Weathering Resistance (Surface) Group W(S)	1~2
Acid Resistance (Surface) Group SR	1.0
Phosphate Resistance PR	2.0

Relative Partial Dispersions	
$\theta_{C,t}$	0.8687
$\theta_{C,A'}$	0.3580
$\theta_{d,C}$	0.3075
$\theta_{e,C}$	0.5461
$\theta_{g,d}$	1.2278
$\theta_{g,F}$	0.5353
$\theta_{h,g}$	0.4415
$\theta_{i,g}$	1.1889
$\theta'_{C,t}$	0.9114
$\theta'_{e,C'}$	0.4934
$\theta'_{F',e}$	0.5066
$\theta'_{i,F'}$	1.6562

Coloring	
$\lambda_{80} / \lambda_5$	33/29

Internal Transmittance	
$\lambda$ (nm)	$\tau$ 10mm
280	
290	0.08
300	0.31
310	0.58
320	0.77
330	0.88
340	0.940
350	0.968
360	0.984
370	0.991
380	0.991
390	0.996
400	0.997
420	0.996
440	0.995
460	0.995
480	0.996
500	0.996
550	0.998
600	0.997
650	0.997
700	0.998
800	0.998
900	0.997
1000	0.996
1200	0.995
1400	0.982
1600	0.991
1800	0.980
2000	0.961
2200	0.89
2400	0.85