

Refractive Index	n_d	1,80000 1,800000	Abbe Number	ν_d	29,84	Dispersion	$n_F - n_C$	0,026806
Refractive Index	n_e	1,806331	Abbe Number	ν_e	29,61	Dispersion	$n_F - n_{C'}$	0,027232

Refractive Indices		
$\lambda(\mu m)$		
n_{2325}	2.32542	1,74989
n_{1970}	1.97009	1,75600
n_{1530}	1.52958	1,76316
n_{1129}	1.12864	1,77082
n_t	1.01398	1,77381
n_s	0.85211	1,77959
$n_{A'}$	0.76819	1,78388
n_r	0.70652	1,78799
n_C	0.65627	1,79224
$n_{C'}$	0.64385	1,79345
n_{He-Ne}	0.6328	1,79459
n_D	0.58929	1,79977
n_d	0.58756	1,80000
n_e	0.54607	1,80633
n_F	0.48613	1,81904
$n_{F'}$	0.47999	1,82068
n_{He-Cd}	0.44157	1,83297
n_g	0.435835	1,83517
n_h	0.404656	1,84951
n_i	0.365015	

Constants of Dispersion Formula	
A ₁	1,83145156E+00
A ₂	2,87818024E-01
A ₃	2,15208300E+00
B ₁	1,22443139E-02
B ₂	5,73877310E-02
B ₃	1,86099124E+02

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

Mechanical Properties	
Young's Modulus E (10 ⁹ N/m ²)	105,3
Rigidity Modulus G (10 ⁹ N/m ²)	41,5
Poisson's Ratio σ	0,269
Knoop Hardness Hk [Class]	600 6
Abrasion Aa	148
Photoelastic Constant β (nm/cm/10 ⁵ Pa)	2,50

Partial Dispersions	
$n_C - n_t$	0,018427
$n_C - n_{A'}$	0,008355
$n_d - n_C$	0,007763
$n_e - n_C$	0,014094
$n_g - n_d$	0,035172
$n_g - n_F$	0,016129
$n_h - n_g$	0,014338
$n_i - n_g$	
$n_{C'} - n_t$	0,019637
$n_e - n_{C'}$	0,012884
$n_F - n_e$	0,014348
$n_i - n_F$	

Relative Partial Dispersion	
$\theta_{C,t}$	0,6874
$\theta_{C,A'}$	0,3117
$\theta_{d,C}$	0,2896
$\theta_{e,C}$	0,5258
$\theta_{g,d}$	1,3121
$\theta_{g,F}$	0,6017
$\theta_{h,g}$	0,5349
$\theta_{i,g}$	
$\theta'_{C,t}$	0,7211
$\theta'_{e,C'}$	0,4731
$\theta'_{F,e}$	0,5269
$\theta'_{i,F'}$	

Deviation of Relative Dispersions	
$\Delta \theta_{C,t}$	0,0007
$\Delta \theta_{C,A'}$	-0,0003
$\Delta \theta_{g,d}$	0,0094
$\Delta \theta_{g,F}$	0,0085
$\Delta \theta_{i,g}$	

Thermal Properties	
Strain Point STP (°C)	-
Annealing Point AP (°C)	-
Transformation Temperature Tg (°C)	613
Yield Point At (°C)	663
Softening Point SP (°C)	-
Expansion Coefficients (-30~+70°C)	82
α (10 ⁻⁷ /°C) (+100~+300°C)	90
Thermal Conductivity k (W/m·K)	0,994

Coloring			
λ_{80}	435	λ_5	360
λ_{70}			

Internal Transmittance			
$\lambda_{0.80}$	392	$\lambda_{0.05}$	360

CCI		
B	G	R
0,00	2,72	2,91

Internal Transmittance	
$\lambda(nm)$	τ 10mm
280	
290	
300	
310	
320	
330	
340	
350	
360	0,04
370	0,34
380	0,63
390	0,78
400	0,86
420	0,931
440	0,958
460	0,970
480	0,978
500	0,983
550	0,992
600	0,995
650	0,995
700	0,997
800	0,998
900	0,999
1000	0,999
1200	0,999
1400	0,997
1600	0,996
1800	0,991
2000	0,985
2200	0,969
2400	0,943

Other Properties	
Density d	3,68

Temperature Coefficients of Refractive Index							
Range of Temperature (°C)	dn/dT relative (10 ⁻⁶ /°C)						
	t	C'	He-Ne	D	e	F'	g
-40~-20	2,9	3,8	3,9	4,2	4,7	5,7	7,0
-20~ 0	2,8	3,9	3,9	4,3	4,8	5,9	7,2
0~20	2,8	3,9	4,0	4,3	4,8	6,1	7,4
20~40	2,8	3,9	4,0	4,4	4,9	6,2	7,6
40~60	2,8	4,0	4,0	4,4	5,0	6,3	7,8
60~80	2,9	4,1	4,2	4,6	5,2	6,6	8,2