

Refractive Index	n_d	1,74400 1,743997	Abbe Number	ν_d	44,78	Dispersion	$n_F - n_C$	0,016613
Refractive Index	n_e	1,747946	Abbe Number	ν_e	44,50	Dispersion	$n_F - n_{C'}$	0,016806

Refractive Indices		
$\lambda(\mu m)$		
n_{2325}	2.32542	1,70597
n_{1970}	1.97009	1,71177
n_{1530}	1.52958	1,71820
n_{1129}	1.12864	1,72436
n_t	1.01398	1,72658
n_s	0.85211	1,73065
$n_{A'}$	0.76819	1,73356
n_r	0.70652	1,73629
n_C	0.65627	1,73905
$n_{C'}$	0.64385	1,73983
n_{He-Ne}	0.6328	1,74056
n_D	0.58929	1,74385
n_d	0.58756	1,74400
n_e	0.54607	1,74795
n_F	0.48613	1,75566
$n_{F'}$	0.47999	1,75663
n_{He-Cd}	0.44157	1,76380
n_g	0.435835	1,76506
n_h	0.404656	1,77304
n_i	0.365015	1,78708

Constants of Dispersion Formula	
A ₁	1,77130000E+00
A ₂	1,95814230E-01
A ₃	1,19487834E+00
B ₁	9,76652444E-03
B ₂	4,12718628E-02
B ₃	1,10458122E+02

Chemical Properties	
Water Resistance (Powder) Group RW(P)	1
Acid Resistance (Powder) Group RA(P)	4
Weathering Resistance (Surface) Group	2~3
Acid Resistance (Surface) Group SR	52.2
Phosphate Resistance PR	3.0

Mechanical Properties	
Young's Modulus E (10 ⁹ N/m ²)	93,5
Rigidity Modulus G (10 ⁹ N/m ²)	36,1
Poisson's Ratio σ	0,295
Knoop Hardness Hk [Class]	570 6
Abrasion Aa	157
Photoelastic Constant β (nm/cm/10 ⁵ Pa)	1,72

Partial Dispersions	
$n_C - n_t$	0,012472
$n_C - n_{A'}$	0,005488
$n_d - n_C$	0,004949
$n_e - n_C$	0,008898
$n_g - n_d$	0,021058
$n_g - n_F$	0,009394
$n_h - n_g$	0,007986
$n_i - n_g$	0,022027
$n_{C'} - n_t$	0,013252
$n_e - n_{C'}$	0,008118
$n_F - n_e$	0,008688
$n_i - n_F$	0,030448

Relative Partial Dispersion	
$\theta_{C,t}$	0,7507
$\theta_{C,A'}$	0,3303
$\theta_{d,C}$	0,2979
$\theta_{e,C}$	0,5356
$\theta_{g,d}$	1,2676
$\theta_{g,F}$	0,5655
$\theta_{h,g}$	0,4807
$\theta_{i,g}$	1,3259
$\theta_{C',t}$	0,7885
$\theta_{e,C'}$	0,4830
$\theta_{F,e}$	0,5170
$\theta_{i,F'}$	1,8117

Deviation of Relative Dispersions	
$\Delta \theta_{C,t}$	-0,0061
$\Delta \theta_{C,A'}$	0,0002
$\Delta \theta_{g,d}$	-0,0041
$\Delta \theta_{g,F}$	-0,0035
$\Delta \theta_{i,g}$	-0,0242

Thermal Properties	
Strain Point STP (°C)	590
Annealing Point AP (°C)	617
Transformation Temperature Tg (°C)	633
Yield Point At (°C)	670
Softening Point SP (°C)	711
Expansion Coefficients (-30~+70°C)	74
α (10 ⁻⁷ /°C) (+100~+300°C)	87
Thermal Conductivity k (W/m·K)	0,698

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	1,9	2,5	2,5	2,7	3,0	3,5	4,1
-20~0	2,0	2,6	2,6	2,8	3,1	3,7	4,3
0~20	2,0	2,6	2,7	2,9	3,2	3,8	4,5
20~40	2,1	2,7	2,8	3,0	3,3	3,9	4,6
40~60	2,2	2,8	2,8	3,1	3,4	4,1	4,8
60~80	2,2	2,9	2,9	3,2	3,5	4,2	4,9

Coloring			
λ_{80}	395	λ_5	340
λ_{70}			

Internal Transmittance			
$\lambda_{0.80}$	372	$\lambda_{0.05}$	340

CCI		
B	G	R
0,00	1,00	1,02

Internal Transmittance	
$\lambda(nm)$	τ 10mm
280	
290	
300	
310	
320	
330	
340	0,04
350	0,29
360	0,59
370	0,78
380	0,87
390	0,925
400	0,950
420	0,973
440	0,983
460	0,987
480	0,992
500	0,995
550	0,997
600	0,997
650	0,997
700	0,998
800	0,999
900	0,997
1000	0,997
1200	0,999
1400	0,997
1600	0,996
1800	0,988
2000	0,971
2200	0,928
2400	0,79

Other Properties	
Density d	4,32