

Refractive Index	n_d	1,69700 1,697002	Abbe Number	ν_d	48,52	Dispersion	$n_F - n_C$	0,014366
Refractive Index	n_e	1,700421	Abbe Number	ν_e	48,24	Dispersion	$n_F - n_{C'}$	0,014521

Refractive Indices		
$\lambda(\mu m)$		
n_{2325}	2.32542	1,66174
n_{1970}	1.97009	1,66748
n_{1530}	1.52958	1,67376
n_{1129}	1.12864	1,67959
n_t	1.01398	1,68163
n_s	0.85211	1,68530
$n_{A'}$	0.76819	1,68788
n_r	0.70652	1,69028
n_C	0.65627	1,69270
$n_{C'}$	0.64385	1,69338
n_{He-Ne}	0.6328	1,69401
n_D	0.58929	1,69688
n_d	0.58756	1,69700
n_e	0.54607	1,70042
n_F	0.48613	1,70706
$n_{F'}$	0.47999	1,70790
n_{He-Cd}	0.44157	1,71402
n_g	0.435835	1,71509
n_h	0.404656	1,72187
n_i	0.365015	1,73366

Constants of Dispersion Formula	
A ₁	1,63056133E+00
A ₂	1,86994897E-01
A ₃	1,30014289E+00
B ₁	8,99690705E-03
B ₂	3,68011993E-02
B ₃	1,22239544E+02

Chemical Properties	
Water Resistance (Powder) Group RW(P)	1
Acid Resistance (Powder) Group RA(P)	4
Weathering Resistance (Surface) Group	3
Acid Resistance (Surface) Group SR	5.2
Phosphate Resistance PR	1.0

Mechanical Properties	
Young's Modulus E (10 ⁹ N/m ²)	1006
Rigidity Modulus G (10 ⁹ N/m ²)	394
Poisson's Ratio σ	0,277
Knoop Hardness Hk [Class]	600 6
Abrasion Aa	142
Photoelastic Constant β (nm/cm/10 ⁵ Pa)	1,69

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

Partial Dispersions	
$n_C - n_t$	0,011071
$n_C - n_{A'}$	0,004818
$n_d - n_C$	0,004306
$n_e - n_C$	0,007725
$n_g - n_d$	0,018089
$n_g - n_F$	0,008029
$n_h - n_g$	0,006774
$n_i - n_g$	0,018569
$n_{C'} - n_t$	0,011751
$n_e - n_{C'}$	0,007045
$n_F - n_e$	0,007476
$n_i - n_F$	0,025763

Relative Partial Dispersion	
$\theta_{C,t}$	0,7706
$\theta_{C,A'}$	0,3354
$\theta_{d,C}$	0,2997
$\theta_{e,C}$	0,5377
$\theta_{g,d}$	1,2592
$\theta_{g,F}$	0,5589
$\theta_{h,g}$	0,4715
$\theta_{i,g}$	1,2926
$\theta'_{C,t}$	0,8092
$\theta'_{e,C'}$	0,4852
$\theta'_{F,e}$	0,5148
$\theta'_{i,F'}$	1,7742

Deviation of Relative Dispersions	
$\Delta \theta_{C,t}$	-0,0037
$\Delta \theta_{C,A'}$	0,0007
$\Delta \theta_{g,d}$	-0,0047
$\Delta \theta_{g,F}$	-0,0041
$\Delta \theta_{i,g}$	-0,0261

Thermal Properties	
Strain Point STP (°C)	594
Annealing Point AP (°C)	623
Transformation Temperature Tg (°C)	634
Yield Point At (°C)	678
Softening Point SP (°C)	735
Expansion Coefficients (-30~+70°C)	71
α (10 ⁻⁷ /°C) (+100~+300°C)	83
Thermal Conductivity k (W/m·K)	0,847

Coloring			
λ_{80}	380	λ_5	330
λ_{70}			

Internal Transmittance			
$\lambda_{0.80}$	365	$\lambda_{0.05}$	337

CCI		
B	G	R
0,00	0,65	0,60

Internal Transmittance	
$\lambda(nm)$	τ 10mm
280	
290	
300	
310	
320	
330	
340	0,14
350	0,47
360	0,73
370	0,86
380	0,923
390	0,954
400	0,969
420	0,982
440	0,986
460	0,989
480	0,992
500	0,995
550	0,997
600	0,996
650	0,995
700	0,997
800	0,998
900	0,998
1000	0,998
1200	0,998
1400	0,996
1600	0,996
1800	0,991
2000	0,982
2200	0,952
2400	0,85

Other Properties	
Bubble Quality Group B	
Density d	3,77
Remarks	