

Refractive Index	n_d	1,51633 1,516330	Abbe Number	ν_d	63,89	Dispersion	n_F-n_C	0,008082
Refractive Index	n_e	1,518258	Abbe Number	ν_e	63,67	Dispersion	$n_F-n_{C'}$	0,008140

Refractive Indices		
$\lambda(\mu\text{m})$		
n_{2325}	2.32542	1,48860
n_{1970}	1.97009	1,49438
n_{1530}	1.52958	1,50037
n_{1129}	1.12864	1,50530
n_t	1.01398	1,50681
n_s	0.85211	1,50931
$n_{A'}$	0.76819	1,51095
n_r	0.70652	1,51241
n_C	0.65627	1,51385
$n_{C'}$	0.64385	1,51424
$n_{\text{He-Ne}}$	0.6328	1,51461
n_D	0.58929	1,51626
n_d	0.58756	1,51633
n_e	0.54607	1,51826
n_F	0.48613	1,52193
$n_{F'}$	0.47999	1,52238
$n_{\text{He-Cd}}$	0.44157	1,52569
n_g	0.435835	1,52627
n_h	0.404656	1,52987
n_i	0.365015	1,53602

Constants of Dispersion Formula	
A ₁	1,25482260E+00
A ₂	1,51111808E-02
A ₃	1,01493883E+00
B ₁	8,05680214E-03
B ₂	5,29921282E-02
B ₃	1,03372690E+02

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

Mechanical Properties	
Young's Modulus E (10 ⁹ N/m ²)	814
Rigidity Modulus G (10 ⁹ N/m ²)	336
Poisson's Ratio σ	0,211
Knoop Hardness Hk [Class]	580 6
Abrasion Aa	93
Photoelastic Constant β (nm/cm/10 ⁹ Pa)	2,86

Partial Dispersions	
n_C-n_t	0,007038
$n_C-n_{A'}$	0,002897
n_d-n_C	0,002484
n_e-n_C	0,004412
n_g-n_d	0,009938
n_g-n_F	0,004340
n_h-n_g	0,003598
n_i-n_g	0,009755
$n_{C'}-n_t$	0,007436
$n_e-n_{C'}$	0,004014
$n_{F'}-n_e$	0,004126
$n_i-n_{F'}$	0,013639

Relative Partial Dispersion	
$\theta_{C,t}$	0,8708
$\theta_{C,A'}$	0,3585
$\theta_{d,C}$	0,3073
$\theta_{e,C}$	0,5459
$\theta_{g,d}$	1,2296
$\theta_{g,F}$	0,5370
$\theta_{h,g}$	0,4452
$\theta_{i,g}$	1,2070
$\theta_{C',t}$	0,9135
$\theta'_{e,C'}$	0,4931
$\theta'_{F',e}$	0,5069
$\theta'_{i,F'}$	1,6756

Deviation of Relative Dispersions	
$\Delta \theta_{C,t}$	0,0243
$\Delta \theta_{C,A'}$	0,0052
$\Delta \theta_{g,d}$	-0,0024
$\Delta \theta_{g,F}$	-0,0011
$\Delta \theta_{i,g}$	0,0170

Thermal Properties	
Strain Point STP (°C)	535
Annealing Point AP (°C)	562
Transformation Temperature Tg (°C)	591
Yield Point At (°C)	638
Softening Point SP (°C)	724
Expansion Coefficients (-30~+70°C)	69
α (10 ⁻⁷ /°C) (+100~+300°C)	82
Thermal Conductivity k (W/m·K)	1,16

Coloring			
λ_{80}	410	λ_5	365
λ_{70}			

Internal Transmittance			
$\lambda_{0.80}$	402	$\lambda_{0.05}$	362

CCI		
B	G	R
0,00	3,54	3,85

Internal Transmittance	
$\lambda(\text{nm})$	τ 10mm
280	
290	
300	
310	
320	
330	
340	
350	
360	0,02
370	0,18
380	0,44
390	0,66
400	0,79
420	0,915
440	0,953
460	0,967
480	0,974
500	0,979
550	0,987
600	0,991
650	0,994
700	0,997
800	0,999
900	0,999
1000	0,999
1200	0,999
1400	0,974
1600	0,992
1800	0,979
2000	0,955
2200	0,86
2400	0,81

Other Properties	
Bubble Quality Group B	
Density d	2,50
Remarks	

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