

Refractive Index n_d	1,66680 1,666800	Abbe Number ν_d	33,05	Dispersion n_F-n_C	0,020173
Refractive Index n_e	1,671568	Abbe Number ν_e	32,80	Dispersion $n_F-n_{C'}$	0,020477

Refractive Indices		
$\lambda(\mu\text{m})$		
n_{2325}	2.32542	1,62567
n_{1970}	1.97009	1,63132
n_{1530}	1.52958	1,63776
n_{1129}	1.12864	1,64425
n_t	1.01398	1,64667
n_s	0.85211	1,65123
$n_{A'}$	0.76819	1,65454
n_r	0.70652	1,65769
n_C	0.65627	1,66092
$n_{C'}$	0.64385	1,66184
$n_{\text{He-Ne}}$	0.6328	1,66271
n_D	0.58929	1,66662
n_d	0.58756	1,66680
n_e	0.54607	1,67157
n_F	0.48613	1,68110
$n_{F'}$	0.47999	1,68232
$n_{\text{He-Cd}}$	0.44157	1,69148
n_g	0.435835	1,69311
n_h	0.404656	1,70373
n_i	0.365015	

Constants of Dispersion Formula	
A ₁	1,47008105E+00
A ₂	2,24752746E-01
A ₃	2,44968592E+00
B ₁	1,02900432E-02
B ₂	5,41276904E-02
B ₃	2,37434940E+02

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

Mechanical Properties	
Young's Modulus E (10 ⁹ N/m ²)	817
Rigidity Modulus G (10 ⁹ N/m ²)	328
Poisson's Ratio σ	0,246
Knoop Hardness Hk [Class]	550 6
Abrasion Aa	160
Photoelastic Constant β (nm/cm/10 ⁹ Pa)	2,64

Partial Dispersions	
n_C-n_t	0,014252
$n_C-n_{A'}$	0,006381
n_d-n_C	0,005875
n_e-n_C	0,010643
n_g-n_d	0,026315
n_g-n_F	0,012017
n_h-n_g	0,010616
n_i-n_g	
$n_{C'}-n_t$	0,015170
$n_e-n_{C'}$	0,009725
$n_{F'}-n_e$	0,010752
$n_i-n_{F'}$	

Relative Partial Dispersion	
$\theta_{C,t}$	0,7065
$\theta_{C,A'}$	0,3163
$\theta_{d,C}$	0,2912
$\theta_{e,C}$	0,5276
$\theta_{g,d}$	1,3045
$\theta_{g,F}$	0,5957
$\theta_{h,g}$	0,5262
$\theta_{i,g}$	
$\theta'_{C,t}$	0,7408
$\theta'_{e,C'}$	0,4749
$\theta'_{F,e}$	0,5251
$\theta'_{i,F'}$	

Deviation of Relative Dispersions	
$\Delta \theta_{C,t}$	0,0048
$\Delta \theta_{C,A'}$	0,0004
$\Delta \theta_{g,d}$	0,0084
$\Delta \theta_{g,F}$	0,0077
$\Delta \theta_{i,g}$	

Thermal Properties	
Strain Point STP (°C)	544
Annealing Point AP (°C)	569
Transformation Temperature Tg (°C)	591
Yield Point At (°C)	621
Softening Point SP (°C)	682
Expansion Coefficients (-30~+70°C)	87
α (10 ⁻⁷ /°C) (+100~+300°C)	104
Thermal Conductivity k (W/m·K)	0,988

Coloring			
λ_{80}	400	λ_5	360
λ_{70}			

Internal Transmittance			
$\lambda_{0.80}$	389	$\lambda_{0.05}$	361

CCI		
B	G	R
0,00	1,86	1,92

Internal Transmittance	
$\lambda(\text{nm})$	τ 10mm
280	
290	
300	
310	
320	
330	
340	
350	
360	0,03
370	0,33
380	0,66
390	0,82
400	0,906
420	0,962
440	0,973
460	0,980
480	0,985
500	0,989
550	0,994
600	0,995
650	0,994
700	0,995
800	0,998
900	0,999
1000	0,998
1200	0,998
1400	0,995
1600	0,994
1800	0,983
2000	0,971
2200	0,937
2400	0,913

Other Properties	
Bubble Quality Group B	
Density d	2,92
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	0,4	1,1	1,2	1,3	1,7	2,5	3,4
-20~0	0,5	1,3	1,3	1,4	1,8	2,7	3,6
0~20	0,7	1,4	1,4	1,5	2,0	2,8	3,9
20~40	0,7	1,5	1,5	1,7	2,1	3,0	4,1
40~60	0,8	1,5	1,5	1,8	2,2	3,2	4,3
60~80	0,8	1,6	1,6	1,9	2,3	3,3	4,5