

Refractive Index $n_d$	<b>2,00330</b> 2,003300	Abbe Number $\nu_d$	<b>28,27</b>	Dispersion $n_F-n_C$	<b>0,035486</b>
Refractive Index $n_e$	2,011689	Abbe Number $\nu_e$	28,07	Dispersion $n_F-n_{C'}$	0,036041

Refractive Indices		
$\lambda(\mu\text{m})$		
$n_{2325}$	2.32542	1,93904
$n_{1970}$	1.97009	1,94642
$n_{1530}$	1.52958	1,95518
$n_{1129}$	1.12864	1,96486
$n_t$	1.01398	1,96873
$n_s$	0.85211	1,97630
$n_{A'}$	0.76819	1,98195
$n_r$	0.70652	1,98739
$n_C$	0.65627	1,99301
$n_{C'}$	0.64385	1,99461
$n_{\text{He-Ne}}$	0.6328	1,99613
$n_D$	0.58929	2,00299
$n_d$	0.58756	2,00330
$n_e$	0.54607	2,01169
$n_F$	0.48613	2,02850
$n_{F'}$	0.47999	2,03066
$n_{\text{He-Cd}}$	0.44157	2,04682
$n_g$	0.435835	2,04972
$n_h$	0.404656	2,06844
$n_i$	0.365015	

Constants of Dispersion Formula	
A <sub>1</sub>	2,32557148E+00
A <sub>2</sub>	5,07967133E-01
A <sub>3</sub>	2,43087198E+00
B <sub>1</sub>	1,32895208E-02
B <sub>2</sub>	5,28335449E-02
B <sub>3</sub>	1,61122408E+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 <sup>9</sup> N/m <sup>2</sup> )	1255
Rigidity Modulus G (10 <sup>9</sup> N/m <sup>2</sup> )	484
Poisson's Ratio $\sigma$	0,297
Knoop Hardness Hk [Class]	700   7
Abrasion Aa	63
Photoelastic Constant $\beta$ (nm/cm/10 <sup>5</sup> Pa)	1,89

Partial Dispersions	
$n_C-n_t$	0,024281
$n_C-n_{A'}$	0,011059
$n_d-n_C$	0,010289
$n_e-n_C$	0,018678
$n_g-n_d$	0,046416
$n_g-n_{F'}$	0,021219
$n_h-n_g$	0,018725
$n_i-n_g$	
$n_{C'}-n_t$	0,025885
$n_e-n_{C'}$	0,017074
$n_{F'}-n_e$	0,018967
$n_i-n_{F'}$	

Relative Partial Dispersion	
$\theta_{C,t}$	0,6842
$\theta_{C,A'}$	0,3116
$\theta_{d,C}$	0,2899
$\theta_{e,C}$	0,5263
$\theta_{g,d}$	1,3080
$\theta_{g,F}$	0,5980
$\theta_{h,g}$	0,5277
$\theta_{i,g}$	
$\theta'_{C,t}$	0,7182
$\theta'_{e,C'}$	0,4737
$\theta'_{F,e}$	0,5263
$\theta'_{i,F'}$	

Deviation of Relative Dispersions	
$\Delta \theta_{C,t}$	0,0049
$\Delta \theta_{C,A'}$	0,0015
$\Delta \theta_{g,d}$	0,0020
$\Delta \theta_{g,F}$	0,0023
$\Delta \theta_{i,g}$	

Thermal Properties	
Strain Point STP (°C)	
Annealing Point AP (°C)	
Transformation Temperature Tg (°C)	699
Yield Point At (°C)	731
Softening Point SP (°C)	
Expansion Coefficients (-30~+70°C)	60
$\alpha$ (10 <sup>-7</sup> /°C) (+100~+300°C)	71
Thermal Conductivity k (W/m·K)	0,957

Coloring			
$\lambda_{80}$		$\lambda_5$	370
$\lambda_{70}$	460		

Internal Transmittance			
$\lambda_{0.80}$	435	$\lambda_{0.05}$	371

CCI		
B	G	R
0,00	10,86	11,57

Internal Transmittance	
$\lambda(\text{nm})$	$\tau$ 10mm
280	
290	
300	
310	
320	
330	
340	
350	
360	
370	0,03
380	0,16
390	0,33
400	0,50
420	0,72
440	0,83
460	0,88
480	0,921
500	0,945
550	0,979
600	0,988
650	0,991
700	0,993
800	0,996
900	0,997
1000	0,997
1200	0,998
1400	0,998
1600	0,997
1800	0,994
2000	0,986
2200	0,966
2400	0,89

Other Properties	
Bubble Quality Group B	
Density d	5,23
Remarks	

Temperature Coefficients of Refractive Index							
Range of Temperature (°C)	$dn/dT$ relative (10 <sup>-6</sup> /°C)						
	t	C'	He-Ne	D	e	F'	g
-40~-20	6,5	8,0	8,1	8,6	9,2	10,7	12,4
-20~0	6,7	8,2	8,3	8,9	9,5	11,1	12,9
0~20	6,9	8,5	8,6	9,2	9,8	11,5	13,4
20~40	7,0	8,7	8,9	9,4	10,	11,9	13,8
40~60	7,2	9,0	9,1	9,7	10,	12,2	14,3
60~80	7,4	9,2	9,4	10,0	10,	12,6	14,8