

PBL26Y

Code(d) **567428**

Code(e) **570426**

Refractive Index n_d	1.56732 1.567322	Abbe Number v_d	42.8 42.86	Dispersion n_F-n_C	0.01324 0.013238
Refractive Index n_e	1.570466	Abbe Number v_e	42.58	Dispersion n_F-n_C	0.013399

Refractive Indices		
$\lambda(\mu\text{m})$		
n_{2325}	2.32542	1.53658
n_{1970}	1.97009	1.54138
n_{1530}	1.52958	1.54668
n_{1129}	1.12864	1.55170
n_t	1.01398	1.55348
n_s	0.85211	1.55673
$n_{A'}$	0.76819	1.55904
n_r	0.70652	1.56120
n_C	0.65627	1.56339
$n_{C'}$	0.64385	1.56401
$n_{\text{He-Ne}}$	0.6328	1.56459
n_D	0.58929	1.56721
n_d	0.58756	1.56732
n_e	0.54607	1.57047
n_F	0.48613	1.57663
$n_{F'}$	0.47999	1.57741
$n_{\text{He-Cd}}$	0.44157	1.58317
n_g	0.435835	1.58418
n_h	0.404656	1.59065
n_i	0.365015	1.60217
n_{334}	0.334148	1.61543
n_{326}	0.326106	1.61986

Partial Dispersions	
n_C-n_t	0.009910
$n_C-n_{A'}$	0.004353
n_d-n_C	0.003931
n_e-n_C	0.007075
n_g-n_d	0.016861
n_g-n_F	0.007554
n_h-n_g	0.006471
n_i-n_g	0.017986
n_C-n_t	0.010529
$n_e-n_{C'}$	0.006456
$n_{F'-n_e}$	0.006943
$n_{F'-n_F}$	0.024760

Relative Partial Dispersions	
$\theta_{C,t}$	0.7486
$\theta_{C,A'}$	0.3288
$\theta_{d,C}$	0.2969
$\theta_{e,C}$	0.5344
$\theta_{g,d}$	1.2737
$\theta_{g,F}$	0.5706
$\theta_{h,g}$	0.4888
$\theta_{i,g}$	1.3587
$\theta'_{C,t}$	0.7858
$\theta'_{e,C'}$	0.4818
$\theta'_{F',e}$	0.5182
$\theta'_{i,F}$	1.8479

Thermal Properties	
Strain Point StP (°C)	380
Annealing Point AP (°C)	418
Transformation Temperature Tg (°C)	432
Yield Point At (°C)	471
Softening Point SP (°C)	591
Expansion Coefficients (-30~+70°C)	89
α (10 ⁻⁷ /°C) (+100~+300°C)	100
Thermal Conductivity k (W/m·K)	0.912

Coloring			
λ_{80}	33	λ_5	31

Internal Transmittance		
$\lambda(\text{nm})$	$\tau_{10\text{mm}}$	$\tau_{25\text{mm}}$
240		
250		
260		
270		
280		
290		
300		
310	0.04	
320	0.47	0.15
330	0.84	0.65
340	0.957	0.89
350	0.985	0.963
360	0.994	0.986
365	0.996	0.989
370	0.997	0.992
380	0.998	0.995
390	0.998	0.996
400	0.998	0.996
420	0.999	0.997
440	0.999	0.997
460	0.999	0.998
480	0.999	0.998
500	0.999	0.998
550	0.999	0.998
600	0.999	0.998
650	0.999	0.998
700	0.999	0.999
800	0.999	0.999
900	0.999	0.997
1000	0.998	0.994
1200	0.997	0.993
1400	0.996	0.990
1600	0.994	0.984
1800	0.979	0.948
2000	0.950	0.87
2200	0.89	0.76
2400	0.85	0.67

Deviation of Relative Dispersions $\Delta\theta$ from "Normal"	
$\Delta \theta_{C,t}$	0.0008
$\Delta \theta_{C,A'}$	0.0010
$\Delta \theta_{g,d}$	-0.0020
$\Delta \theta_{g,F}$	-0.0015
$\Delta \theta_{i,g}$	-0.0074

Mechanical Properties	
Young's Modulus E (10 ⁹ N/m ²)	589
Rigidity Modulus G (10 ⁹ N/m ²)	242
Poisson's Ratio σ	0.220
Knoop Hardness Hk[Class]	420 4
Abrasion Aa	136
Photoelastic Constant β (nm/cm/10 ⁵ Pa)	

Constants of Dispersion Formula *1	
A ₁	1.29471773E+00
A ₂	1.08880981E-01
A ₃	2.20322964E-01
B ₁	9.86579479E-03
B ₂	4.77568828E-02
B ₃	2.88509863E+01

*1 By using these contents, refractive indices for any wavelength between 326 and 1129nm can be calculated. When calculateing refractive indices for any wavelength between 1129 and 2325nm, please refer to us.

Other Properties	
Bubble Quality Group B	
Specific Gravity d	3.1
Remarks	

Chemical Properties	
Water Resistance(Powder) Group RW(P)	2
Acid Resistance(Powder) Group RA(P)	1
Weathering Resistance(Surface) Group W(S)	1
Acid Resistance(Surface) Group SR	1.0
Phosphate Resistance PR	2.0

Temperature Coefficients of Refractive Index								
Range of Temperature (°C)	dn/dt relative (10 ⁻⁶ /°C)							
	t	C'	He-Ne	D	e	F'	g	i
-40~20	0.9	1.5	1.5	1.7	2.0	2.5	3.0	4.9
-20~ 0	1.0	1.6	1.7	1.8	2.1	2.6	3.2	5.1
0~20	1.1	1.7	1.8	2.0	2.2	2.8	3.4	5.4
20~40	1.2	1.9	1.9	2.1	2.4	3.0	3.6	5.7
40~60	1.3	2.0	2.0	2.2	2.5	3.1	3.8	5.9
60~80	1.4	2.1	2.1	2.4	2.6	3.3	4.0	6.2