PBL35Y

Code(d) **582409**
Code(e) **585406**

Refractive Index	n_d	**1.58159**	Abbe Number	v_d	**40.9**	Dispersion	n_F-n_C	**0.01423**
		1.581591			40.86			0.014235
Refractive Index	n_e	1.584969	Abbe Number	v_e	40.58	Dispersion	n_F'-$n_{C'}$	0.014415

Refractive Indices		
λ(μm)		
n_{2325}	2.32542	1.54982
n_{1970}	1.97009	1.55460
n_{1530}	1.52958	1.55990
n_{1129}	1.12864	1.56502
n_t	1.01398	1.56687
n_s	0.85211	1.57029
$n_{A'}$	0.76819	1.57273
n_r	0.70652	1.57504
n_C	0.65627	1.57738
$n_{C'}$	0.64385	1.57804
$n_{He\text{-}Ne}$	0.6328	1.57866
n_D	0.58929	1.58147
n_d	0.58756	1.58159
n_e	0.54607	1.58497
n_F	0.48613	1.59161
$n_{F'}$	0.47999	1.59246
$n_{He\text{-}Cd}$	0.44157	1.59868
n_g	0.435835	1.59979
n_h	0.404656	1.60681
n_i	0.365015	1.61937
n_{334}	0.334148	1.63392
n_{326}	0.326106	1.63880

Deviation of Relative Dispersions Δθfrom "Normal"	
$\Delta\theta_{C,t}$	-0.0004
$\Delta\theta_{C,A'}$	0.0008
$\Delta\theta_{g,d}$	-0.0018
$\Delta\theta_{g,F}$	-0.0013
$\Delta\theta_{i,g}$	-0.0072

Constants of Dispersion Formula *1	
A_1	1.31884698E+00
A_2	1.25014653E-01
A_3	2.15794324E-01
B_1	1.01474939E-02
B_2	4.81636043E-02
B_3	2.85517448E+01

Other Properties	
Bubble Quality Group B	
Specific Gravity d	3.27
Remarks	

Partial Dispersions	
n_C-n_t	0.010505
n_C-$n_{A'}$	0.004644
n_d-n_C	0.004213
n_e-n_C	0.007591
n_g-n_d	0.018194
n_g-n_F	0.008172
n_h-n_g	0.007026
n_i-n_g	0.019583
n_C-n_t	0.011167
n_e-$n_{C'}$	0.006929
$n_{F'}$-n_e	0.007486
n_i-$n_{F'}$	0.026913

Thermal Properties		
Strain Point StP (℃)		345
Annealing Point AP (℃)		379
Transformation Temperature Tg (℃)		404
Yield Point At (℃)		454
Softening Point SP (℃)		550
Expansion Coefficients α (10^{-7}/℃)	(-30~+70℃)	91
	(+100~+300℃)	107
Thermal Conductivity k (W/m·K)		0.885

Mechanical Properties		
Young's Modulus E (10^8N/m^2)	596	
Rigidity Modulus G (10^8N/m^2)	245	
Poisson's Ratio σ	0.217	
Knoop Hardness Hk[Class]	450	5
Abrasion Aa	145	
Photoelastic Constant β (nm/cm/10^5Pa)		2.88

*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.

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

Relative Partial Dispersions	
$\theta_{C,t}$	0.7380
$\theta_{C,A'}$	0.3262
$\theta_{d,C}$	0.2960
$\theta_{e,C}$	0.5333
$\theta_{g,d}$	1.2781
$\theta_{g,F}$	0.5741
$\theta_{h,g}$	0.4936
$\theta_{i,g}$	1.3757
$\theta'_{C',t}$	0.7747
$\theta'_{e,C'}$	0.4807
$\theta'_{F',e}$	0.5193
$\theta'_{i,F}$	1.8670

Coloring			
λ_{80}	33	λ_5	31

Internal Transmittance		
λ(nm)	τ10mm	τ25mm
240		
250		
260		
270		
280		
290		
300		
310		
320	0.47	0.42
330	0.85	0.73
340	0.963	0.916
350	0.989	0.975
360	0.996	0.990
365	0.997	0.993
370	0.998	0.995
380	0.999	0.997
390	0.999	0.998
400	0.999	0.998
420	0.999	0.999
440	0.999	0.999
460	0.999	0.999
480	0.999	0.999
500	0.999	0.999
550	0.999	0.999
600	0.999	0.999
650	0.999	0.999
700	0.999	0.999
800	0.999	0.999
900	0.999	0.999
1000	0.999	0.999
1200	0.999	0.999
1400	0.998	0.996
1600	0.996	0.990
1800	0.980	0.952
2000	0.955	0.89
2200	0.911	0.79
2400	0.88	0.72

Temperature Coefficients of Refractive Index								
Range of Temperature (℃)	dn/dt relative (10^{-6}/℃)							
	t	C'	He-Ne	D	e	F'	g	i
-40~20	1.0	1.7	1.7	1.9	2.2	2.8	3.4	5.5
-20~ 0	1.0	1.7	1.7	1.9	2.2	2.8	3.5	5.7
0~20	1.1	1.8	1.8	2.0	2.3	3.0	3.7	5.9
20~40	1.1	1.9	1.9	2.1	2.4	3.1	3.8	6.1
40~60	1.2	2.0	2.0	2.2	2.5	3.2	4.0	6.3
60~80	1.4	2.1	2.2	2.4	2.7	3.4	4.2	6.6