

# PBL6Y

Code(d) **532490**

Code(e) **534487**

Refractive Index $n_d$	1.53172 1.531717	Abbe Number $v_d$	49.0 48.95	Dispersion $n_F-n_C$	0.01086 0.010862
Refractive Index $n_e$	1.534301	Abbe Number $v_e$	48.67	Dispersion $n_F-n_C$	0.010977

Refractive Indices		
$\lambda(\mu\text{m})$		
$n_{2325}$	2.32542	1.50343
$n_{1970}$	1.97009	1.50833
$n_{1530}$	1.52958	1.51361
$n_{1129}$	1.12864	1.51837
$n_t$	1.01398	1.51998
$n_s$	0.85211	1.52282
$n_{A'}$	0.76819	1.52480
$n_r$	0.70652	1.52663
$n_C$	0.65627	1.52846
$n_{C'}$	0.64385	1.52897
$n_{\text{He-Ne}}$	0.6328	1.52946
$n_D$	0.58929	1.53162
$n_d$	0.58756	1.53172
$n_e$	0.54607	1.53430
$n_F$	0.48613	1.53932
$n_{F'}$	0.47999	1.53995
$n_{\text{He-Cd}}$	0.44157	1.54459
$n_g$	0.435835	1.54540
$n_h$	0.404656	1.55056
$n_i$	0.365015	1.55959
$n_{334}$	0.334148	1.56978
$n_{326}$	0.326106	1.57312

Partial Dispersions	
$n_C-n_t$	0.008482
$n_C-n_{A'}$	0.003660
$n_d-n_C$	0.003258
$n_e-n_C$	0.005842
$n_g-n_d$	0.013686
$n_g-n_F$	0.006082
$n_h-n_g$	0.005153
$n_i-n_g$	0.014190
$n_C-n_t$	0.008998
$n_e-n_{C'}$	0.005326
$n_{F'}-n_e$	0.005651
$n_i-n_{F'}$	0.019641

Relative Partial Dispersions	
$\theta_{C,t}$	0.7809
$\theta_{C,A'}$	0.3370
$\theta_{d,C}$	0.2999
$\theta_{e,C}$	0.5378
$\theta_{g,d}$	1.2600
$\theta_{g,F}$	0.5599
$\theta_{h,g}$	0.4744
$\theta_{i,g}$	1.3064
$\theta'_{C,t}$	0.8197
$\theta'_{e,C'}$	0.4852
$\theta'_{F',e}$	0.5148
$\theta'_{i,F}$	1.7893

Thermal Properties	
Strain Point StP (°C)	398
Annealing Point AP (°C)	436
Transformation Temperature Tg (°C)	453
Yield Point At (°C)	501
Softening Point SP (°C)	637
Expansion Coefficients (-30~+70°C)	83
$\alpha$ (10 <sup>-7</sup> /°C) (+100~+300°C)	90
Thermal Conductivity k (W/m·K)	1.016

Coloring			
$\lambda_{80}$	32	$\lambda_5$	30

Internal Transmittance			
$\lambda(\text{nm})$	$\tau_{10\text{mm}}$	$\tau_{25\text{mm}}$	
240			
250			
260			
270			
280			
290			
300			
310	0.33	0.06	
320	0.79	0.55	
330	0.947	0.87	
340	0.985	0.963	
350	0.994	0.986	
360	0.997	0.993	
365	0.998	0.994	
370	0.998	0.995	
380	0.998	0.996	
390	0.998	0.997	
400	0.999	0.998	
420	0.999	0.998	
440	0.999	0.998	
460	0.999	0.998	
480	0.999	0.998	
500	0.999	0.998	
550	0.999	0.998	
600	0.999	0.999	
650	0.999	0.998	
700	0.999	0.999	
800	0.999	0.999	
900	0.999	0.998	
1000	0.998	0.996	
1200	0.997	0.993	
1400	0.996	0.990	
1600	0.993	0.983	
1800	0.973	0.934	
2000	0.933	0.84	
2200	0.86	0.69	
2400	0.81	0.59	

Deviation of Relative Dispersions $\Delta\theta$ from "Normal"	
$\Delta \theta_{C,t}$	0.0046
$\Delta \theta_{C,A'}$	0.0018
$\Delta \theta_{g,d}$	-0.0031
$\Delta \theta_{g,F}$	-0.0024
$\Delta \theta_{i,g}$	-0.0087

Constants of Dispersion Formula *1	
$A_1$	1.22310794E+00
$A_2$	8.11217929E-02
$A_3$	3.21400939E-01
$B_1$	8.97805333E-03
$B_2$	4.45756957E-02
$B_3$	4.05962247E+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.

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	1.0

Other Properties	
Bubble Quality Group B	B
Specific Gravity d	2.79
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	i	
-40~20	1.9	2.3	2.3	2.4	2.6	3.0	3.4	4.7	
-20~ 0	1.9	2.4	2.4	2.5	2.7	3.1	3.6	4.9	
0~20	2.0	2.5	2.5	2.6	2.8	3.3	3.7	5.1	
20~40	2.1	2.6	2.6	2.7	2.9	3.4	3.9	5.3	
40~60	2.1	2.7	2.7	2.9	3.1	3.5	4.0	5.6	
60~80	2.2	2.8	2.8	3.0	3.2	3.7	4.2	5.8	