PBL26Y

Code(d) **567428**
Code(e) **570426**

Refractive Index	n_d	**1.56732**	Abbe Number	ν_d	**42.86**	Dispersion	n_F-n_C	**0.013238**
		1.567322						
Refractive Index	n_e	1.570466	Abbe Number	ν_e	42.58	Dispersion	$n_{F'}$-$n_{C'}$	0.013399

Refractive Indices		
λ(μm)		
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
$n_{He\text{-}Ne}$	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
$n_{He\text{-}Cd}$	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

Constants of Dispersion Formula	
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

Chemical Properties	
Water Resistance(Powder) Group RW(P)	1
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

Mechanical Properties		
Young's Modulus E (GPa)	58.9	
Rigidity Modulus G (GPa)	24.2	
Poisson's Ratio σ	0.220	
Knoop Hardness Hk[Class]	420	4
Abrasion Aa	140	

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_i-$n_{F'}$	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

※Refractive Indices of the wavelength nm can be calculated from 326 to 1129 nm by this constant.
Use the appended list of the constants to calculate 1129-2325nm.

Deviation of Relative Dispersions Δθfrom "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

Thermal Properties		
Strain Point StP (℃)		380
Annealing Point AP (℃)		418
Transformation Temperature Tg (℃)		432
Yield Point At (℃)		471
Softening Point SP (℃)		591
Expansion Coefficients α (10^{-7} K^{-1})	(-30~+70℃)	89
	(+100~+300℃)	100
Thermal Conductivity λ W/(m·K)		0.912

Coloring			
λ_{80}	335	λ_5	310
λ_{70}			

Internal transmission			
$\lambda_{0.80}$	329	$\lambda_{0.05}$	310

CCI		
B	G	R
0.00	0.01	0.01

Internal Transmittance		
λ(nm)	τ 10mm	τ 25mm
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

Other Properties	
Photoelastic Constant β nm/(cm·10^5Pa)	
Specific Gravity d	3.10
Remarks	

Temperature Coefficients of Refractive Index								
Range of Temperature (℃)	Δn/ΔT relative ($10^{-6}K^{-1}$)							
	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

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※The name of the glass type is the model number assigned based on the main components of the composition: large, medium, small refractive index and serial number.