

BAL35Y

Code(d) **589612**

Code(e) **591610**

Refractive Index n_d	1.58913 1.589130	Abbe Number v_d	61.2 61.23	Dispersion n_F-n_C	0.00962 0.009621
Refractive Index n_e	1.591426	Abbe Number v_e	60.99	Dispersion $n_F-n_{C'}$	0.009697

Refractive Indices		
$\lambda(\mu m)$		
n_{2325}	2.32542	1.55937
n_{1970}	1.97009	1.56517
n_{1530}	1.52958	1.57128
n_{1129}	1.12864	1.57646
n_t	1.01398	1.57811
n_s	0.85211	1.58093
$n_{A'}$	0.76819	1.58280
n_r	0.70652	1.58451
n_C	0.65627	1.58619
$n_{C'}$	0.64385	1.58666
n_{He-Ne}	0.6328	1.58710
n_D	0.58929	1.58904
n_d	0.58756	1.58913
n_e	0.54607	1.59143
n_F	0.48613	1.59581
$n_{F'}$	0.47999	1.59636
n_{He-Cd}	0.44157	1.60032
n_g	0.435835	1.60100
n_h	0.404656	1.60530
n_i	0.365015	1.61261
n_{334}	0.334148	1.62045
n_{326}	0.326106	1.62293

Partial Dispersions	
n_C-n_t	0.008076
$n_C-n_{A'}$	0.003385
n_d-n_C	0.002940
n_e-n_C	0.005236
n_g-n_d	0.011874
n_g-n_F	0.005193
n_h-n_g	0.004298
n_i-n_g	0.011602
n_C-n_t	0.008545
$n_e-n_{C'}$	0.004767
$n_{F'}-n_e$	0.004930
$n_{F'}-n_{F'}$	0.016250

Relative Partial Dispersions	
$\theta_{C,t}$	0.8394
$\theta_{C,A'}$	0.3518
$\theta_{d,C}$	0.3056
$\theta_{e,C}$	0.5442
$\theta_{g,d}$	1.2342
$\theta_{g,F}$	0.5398
$\theta_{h,g}$	0.4467
$\theta_{i,g}$	1.2059
$\theta'_{C,t}$	0.8812
$\theta'_{e,C'}$	0.4916
$\theta'_{F',e}$	0.5084
$\theta'_{i,F}$	1.6758

Thermal Properties	
Strain Point StP (°C)	
Annealing Point AP (°C)	
Transformation Temperature Tg (°C)	590
Yield Point At (°C)	628
Softening Point SP (°C)	697
Expansion Coefficients (-30~+70°C)	57
α (10 ⁻⁷ /°C) (+100~+300°C)	72
Thermal Conductivity k (W/m-K)	0.991

Coloring			
λ_{80}	32	λ_5	29

Internal Transmittance		
λ (nm)	τ_{10mm}	τ_{25mm}
240		
250		
260		
270		
280		
290	0.11	
300	0.50	0.17
310	0.79	0.56
320	0.920	0.81
330	0.966	0.918
340	0.984	0.960
350	0.991	0.978
360	0.994	0.986
365	0.996	0.990
370	0.996	0.991
380	0.997	0.993
390	0.998	0.995
400	0.998	0.996
420	0.999	0.997
440	0.999	0.997
460	0.999	0.997
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	0.998
800	0.999	0.998
900	0.999	0.997
1000	0.997	0.993
1200	0.997	0.993
1400	0.985	0.963
1600	0.993	0.982
1800	0.986	0.966
2000	0.973	0.934
2200	0.904	0.77
2400	0.82	0.61

Deviation of Relative Dispersions $\Delta\theta$ from "Normal"	
$\Delta \theta_{C,t}$	0.0054
$\Delta \theta_{C,A'}$	0.0017
$\Delta \theta_{g,d}$	-0.0034
$\Delta \theta_{g,F}$	-0.0026
$\Delta \theta_{i,g}$	-0.0064

Constants of Dispersion Formula *1	
A ₁	1.26231429E+00
A ₂	2.25154210E-01
A ₃	6.39119345E-01
B ₁	6.95586355E-03
B ₂	2.21310699E-02
B ₃	6.31662736E+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)	3
Weathering Resistance(Surface) Group W(S)	2
Acid Resistance(Surface) Group SR	4.2
Phosphate Resistance PR	1.0

Other Properties	
Bubble Quality Group B	
Specific Gravity d	3.23
Remarks	

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	3.2	3.4	3.4	3.5	3.7	3.9	4.2	4.9
-20~ 0	3.2	3.5	3.5	3.6	3.8	4.0	4.3	5.0
0~20	3.3	3.6	3.6	3.7	3.9	4.2	4.4	5.2
20~40	3.3	3.7	3.7	3.9	4.0	4.3	4.6	5.4
40~60	3.4	3.8	3.8	4.0	4.1	4.4	4.7	5.6
60~80	3.5	3.9	3.9	4.1	4.2	4.5	4.9	5.7