S-BAM 3

Code(d) **583464**

Code(e) **586461**

Refractive Index	n_d	**1.58267**	Abbe Number	v_d	**46.4**	Dispersion	n_F-n_C	**0.01255**
		1.582673			46.42			0.012551
Refractive Index	n_e	1.585655	Abbe Number	v_e	46.13	Dispersion	n_F'-$n_{C'}$	0.012696

Refractive Indicies		
λ(μm)		
n_{2325}	2.32542	1.55175
n_{1970}	1.97009	1.55685
n_{1530}	1.52958	1.56242
n_{1129}	1.12864	1.56755
n_t	1.01398	1.56932
n_s	0.85211	1.57251
$n_{A'}$	0.76819	1.57475
n_r	0.70652	1.57683
n_C	0.65627	1.57893
$n_{C'}$	0.64385	1.57952
$n_{He\text{-}Ne}$	0.6328	1.58007
n_D	0.58929	1.58256
n_d	0.58756	1.58267
n_e	0.54607	1.58565
n_F	0.48613	1.59148
$n_{F'}$	0.47999	1.59222
$n_{He\text{-}Cd}$	0.44157	1.59764
n_g	0.435835	1.59860
n_h	0.404656	1.60469
n_i	0.365015	1.61551

Deviation of Relative Dispersions Δθfrom "Normal"	
$\Delta\theta_{C,t}$	0.0009
$\Delta\theta_{C,A'}$	0.0009
$\Delta\theta_{g,d}$	0.0006
$\Delta\theta_{g,F}$	0.0007
$\Delta\theta_{i,g}$	0.0112

Constants of Dispersion Formula	
A_1	1.36955358E+00
A_2	8.53825867E-02
A_3	1.16159771E+00
B_1	9.41331434E-03
B_2	5.04359027E-02
B_3	1.30548899E+02

Other Properties	
Bubble Quality Group B	
Specific Gravity d	2.75
Remarks	

Partial Dispersions	
n_C-n_t	0.009607
n_C-$n_{A'}$	0.004179
n_d-n_C	0.003743
n_e-n_C	0.006725
n_g-n_d	0.015926
n_g-n_F	0.007118
n_h-n_g	0.006087
n_i-n_g	0.016912
n_C-n_t	0.010198
n_e-$n_{C'}$	0.006134
n_F-n_e	0.006562
n_i-$n_{F'}$	0.023294

Thermal Properties		
Strain Point StP (℃)		519
Annealing Point AP (℃)		549
Transformation Temperature Tg (℃)		572
Yield Point At (℃)		614
Softening Point SP (℃)		688
Expansion Coefficients α (10^{-7}/℃)	(-30~+70℃)	85
	(+100~+300℃)	100
Thermal Conductivity k (W/m·K)		0.965

Mechanical Properties		
Young's Modulus E (10^8N/m^2)	771	
Rigidity Modulus G (10^8N/m^2)	311	
Poisson's Ratio σ	0.242	
Knoop Hardness Hk[Class]	520	5
Abrasion Aa	155	
Photoelastic Constant β (nm/cm/10^5Pa)		2.63

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	1.0

Relative Partial Dispersions	
$\theta_{C,t}$	0.7654
$\theta_{C,A'}$	0.3330
$\theta_{d,C}$	0.2982
$\theta_{e,C}$	0.5358
$\theta_{g,d}$	1.2689
$\theta_{g,F}$	0.5671
$\theta_{h,g}$	0.4850
$\theta_{i,g}$	1.3475
$\theta'_{C',t}$	0.8032
$\theta'_{e,C'}$	0.4831
$\theta'_{F',e}$	0.5169
$\theta'_{i,F}$	1.8348

Coloring			
λ_{80}	38	λ_5	35
λ_{70}			

Temperature Coefficients of Refractive Index							
Range of Temperature (℃)	dn/dt relative (10^{-6}/℃)						
	t	C'	He-Ne	D	e	F'	g
-40~-20	0.2	0.8	0.8	0.9	1.2	1.6	2.0
-20~ 0	0.4	0.8	0.9	1.0	1.2	1.7	2.2
0~20	0.4	0.9	0.9	1.1	1.3	1.8	2.3
20~40	0.5	1.0	1.0	1.2	1.4	1.9	2.5
40~60	0.6	1.1	1.1	1.3	1.5	2.0	2.6
60~80	0.5	1.1	1.2	1.4	1.6	2.2	2.8

Internal Transmittance	
λ(nm)	τ10mm
280	
290	
300	
310	
320	
330	
340	
350	0.11
360	0.44
370	0.71
380	0.85
390	0.92
400	0.954
420	0.979
440	0.986
460	0.989
480	0.992
500	0.994
550	0.997
600	0.997
650	0.996
700	0.997
800	0.998
900	0.998
1000	0.998
1200	0.997
1400	0.991
1600	0.993
1800	0.981
2000	0.964
2200	0.911
2400	0.87