

S-LAH65V

Code(d) **804466**

Code(e) **808463**

Refractive Index n_d	1.80400 1.804000	Abbe Number ν_d	46.58	Dispersion n_F-n_C	0.017259
Refractive Index n_e	1.808107	Abbe Number ν_e	46.34	Dispersion n_F-n_C'	0.017440

Refractive Indices		
$\lambda(\mu\text{m})$		
n_{2325}	2.32542	1.75986
n_{1970}	1.97009	1.76741
n_{1530}	1.52958	1.77552
n_{1129}	1.12864	1.78286
n_t	1.01398	1.78538
n_s	0.85211	1.78987
$n_{A'}$	0.76819	1.79300
n_r	0.70652	1.79590
n_C	0.65627	1.79882
$n_{C'}$	0.64385	1.79964
$n_{\text{He-Ne}}$	0.6328	1.80041
n_D	0.58929	1.80385
n_d	0.58756	1.80400
n_e	0.54607	1.80811
n_F	0.48613	1.81608
$n_{F'}$	0.47999	1.81708
$n_{\text{He-Cd}}$	0.44157	1.82441
n_g	0.435835	1.82569
n_h	0.404656	1.83380
n_i	0.365015	1.84786

Constants of Dispersion Formula	
A_1	1.81419034E+00
A_2	3.61376301E-01
A_3	1.32729484E+00
B_1	8.74935029E-03
B_2	3.18352836E-02
B_3	9.13406898E+01

Chemical Properties	
Water Resistance(Powder) Group RW(P)	1
Acid Resistance(Powder) Group RA(P)	3
Weathering Resistance(Surface) Group W(S)	3
Acid Resistance(Surface) Group SR	4.1
Phosphate Resistance PR	1.0

Mechanical Properties	
Young's Modulus E (10^9N/m^2)	1220
Rigidity Modulus G (10^8N/m^2)	470
Poisson's Ratio σ	0.298
Knoop Hardness Hk[Class]	730 7
Abrasion Aa	55
Photoelastic Constant β (nm/cm/ 10^9Pa)	1.44

Temperature Coefficients of Refractive Index							
Range of Temperature (°C)	dn/dT relative ($10^{-6}/^\circ\text{C}$)						
	t	C'	He-Ne	D	e	F'	g
-40~-20	3.6	4.1	4.2	4.4	4.6	5.2	5.7
-20~ 0	3.7	4.3	4.4	4.6	4.8	5.4	6.0
0~20	3.8	4.4	4.5	4.7	4.9	5.5	6.1
20~40	3.8	4.5	4.5	4.7	5.0	5.6	6.2
40~60	3.8	4.5	4.6	4.8	5.1	5.7	6.4
60~80	3.9	4.7	4.7	5.0	5.3	5.9	6.6

Partial Dispersions	
n_C-n_t	0.013439
$n_C-n_{A'}$	0.005818
n_d-n_C	0.005183
n_e-n_C	0.009290
n_g-n_d	0.021694
n_g-n_F	0.009618
n_h-n_g	0.008101
n_i-n_g	0.022167
n_C-n_t	0.014259
$n_e-n_{C'}$	0.008470
n_F-n_e	0.008970
$n_i-n_{F'}$	0.030784

Relative Partial Dispersions	
$\theta_{C,t}$	0.7787
$\theta_{C,A'}$	0.3371
$\theta_{d,C}$	0.3003
$\theta_{e,C}$	0.5383
$\theta_{g,d}$	1.2570
$\theta_{g,F}$	0.5573
$\theta_{h,g}$	0.4694
$\theta_{i,g}$	1.2844
$\theta'_{C,t}$	0.8176
$\theta'_{e,C'}$	0.4857
$\theta'_{F,e}$	0.5143
$\theta'_{i,F'}$	1.7651

Deviation of Relative Dispersions $\Delta\theta$ from "Normal"	
$\Delta\theta_{C,t}$	0.0135
$\Delta\theta_{C,A'}$	0.0048
$\Delta\theta_{g,d}$	-0.0110
$\Delta\theta_{g,F}$	-0.0088
$\Delta\theta_{i,g}$	-0.0506

Thermal Properties	
Strain Point StP (°C)	639
Annealing Point AP (°C)	664
Transformation Temperature Tg (°C)	691
Yield Point At (°C)	711
Softening Point SP (°C)	740
Expansion Coefficients (-30~+70°C)	60
α ($10^{-7}/^\circ\text{C}$) (+100~+300°C)	74
Thermal Conductivity k (W/m·K)	0.841

Coloring			
λ_{80}	385	λ_5	315
λ_{70}			

Internal transmission			
$\lambda_{0.80}$	355	$\lambda_{0.05}$	319

CCI		
B	G	R
0.00	0.65	0.67

Internal Transmittance	
$\lambda(\text{nm})$	τ 10mm
280	
290	
300	
310	
320	0.11
330	0.37
340	0.60
350	0.75
360	0.85
370	0.906
380	0.939
390	0.959
400	0.970
420	0.981
440	0.986
460	0.990
480	0.993
500	0.996
550	0.998
600	0.998
650	0.998
700	0.999
800	0.999
900	0.999
1000	0.999
1200	0.999
1400	0.997
1600	0.996
1800	0.989
2000	0.967
2200	0.910
2400	0.68

Other Properties	
Bubble Quality Group B	
Specific Gravity d	4.72
Remarks	

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