

S-LAH96

Code(d) **764485**

Code(e) **768482**

Refractive Index n_d	1.76385 1.763850	Abbe Number ν_d	48.49	Dispersion n_F-n_C	0.015753
Refractive Index n_e	1.767599	Abbe Number ν_e	48.21	Dispersion n_F-n_C'	0.015923

Refractive Indices		
$\lambda(\mu\text{m})$		
n_{2325}	2.32542	1.72543
n_{1970}	1.97009	1.73168
n_{1530}	1.52958	1.73848
n_{1129}	1.12864	1.74481
n_t	1.01398	1.74702
n_s	0.85211	1.75103
$n_{A'}$	0.76819	1.75385
n_r	0.70652	1.75648
n_C	0.65627	1.75913
$n_{C'}$	0.64385	1.75988
$n_{\text{He-Ne}}$	0.6328	1.76057
n_D	0.58929	1.76371
n_d	0.58756	1.76385
n_e	0.54607	1.76760
n_F	0.48613	1.77488
$n_{F'}$	0.47999	1.77580
$n_{\text{He-Cd}}$	0.44157	1.78251
n_g	0.435835	1.78369
n_h	0.404656	1.79112
n_i	0.365015	1.80405

Constants of Dispersion Formula	
A_1	1.85078519E+00
A_2	1.89204854E-01
A_3	1.19763137E+00
B_1	9.40657541E-03
B_2	3.80345187E-02
B_3	1.01426835E+02

Chemical Properties	
Water Resistance(Powder) Group RW(P)	1
Acid Resistance(Powder) Group RA(P)	3
Weathering Resistance(Surface) Group W(S)	2
Acid Resistance(Surface) Group SR	5.0
Phosphate Resistance PR	1.0

Mechanical Properties	
Young's Modulus E (10^9N/m^2)	1187
Rigidity Modulus G (10^8N/m^2)	458
Poisson's Ratio σ	0.296
Knoop Hardness Hk[Class]	650 7
Abrasion Aa	73
Photoelastic Constant β (nm/cm/ 10^9Pa)	1.12

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	2.6	3.2	3.2	3.4	3.7	4.2	4.7
-20~ 0	2.5	3.1	3.2	3.3	3.6	4.1	4.7
0~20	2.4	3.1	3.1	3.3	3.5	4.1	4.7
20~40	2.4	3.0	3.1	3.3	3.5	4.1	4.7
40~60	2.4	3.1	3.1	3.3	3.6	4.2	4.8
60~80	2.5	3.2	3.2	3.4	3.7	4.3	5.0

Partial Dispersions	
n_C-n_t	0.012108
$n_C-n_{A'}$	0.005277
n_d-n_C	0.004721
n_e-n_C	0.008470
n_g-n_d	0.019837
n_g-n_F	0.008805
n_h-n_g	0.007429
n_i-n_g	0.020364
n_C-n_t	0.012854
$n_e-n_{C'}$	0.007724
n_F-n_e	0.008199
$n_i-n_{F'}$	0.028253

Relative Partial Dispersions	
$\theta_{C,t}$	0.7686
$\theta_{C,A'}$	0.3350
$\theta_{d,C}$	0.2997
$\theta_{e,C}$	0.5377
$\theta_{g,d}$	1.2593
$\theta_{g,F}$	0.5589
$\theta_{h,g}$	0.4716
$\theta_{i,g}$	1.2927
$\theta'_{C,t}$	0.8073
$\theta'_{e,C'}$	0.4851
$\theta'_{F,e}$	0.5149
$\theta'_{i,F'}$	1.7744

Deviation of Relative Dispersions $\Delta\theta$ from "Normal"	
$\Delta\theta_{C,t}$	-0.0056
$\Delta\theta_{C,A'}$	0.0004
$\Delta\theta_{g,d}$	-0.0047
$\Delta\theta_{g,F}$	-0.0041
$\Delta\theta_{i,g}$	-0.0263

Thermal Properties	
Strain Point StP (°C)	
Annealing Point AP (°C)	
Transformation Temperature Tg (°C)	629
Yield Point At (°C)	655
Softening Point SP (°C)	
Expansion Coefficients (-30~+70°C)	70
α ($10^{-7}/^\circ\text{C}$) (+100~+300°C)	84
Thermal Conductivity k (W/m·K)	0.890

Coloring			
λ_{80}	400	λ_5	345
λ_{70}			

Internal transmission			
$\lambda_{0.80}$	378	$\lambda_{0.05}$	342

CCI		
B	G	R
0.00	1.09	1.11

Internal Transmittance	
$\lambda(\text{nm})$	τ 10mm
280	
290	
300	
310	
320	
330	
340	0.02
350	0.19
360	0.48
370	0.71
380	0.83
390	0.905
400	0.941
420	0.972
440	0.982
460	0.988
480	0.992
500	0.994
550	0.996
600	0.996
650	0.996
700	0.997
800	0.997
900	0.996
1000	0.996
1200	0.997
1400	0.995
1600	0.995
1800	0.989
2000	0.972
2200	0.930
2400	0.76

Other Properties	
Bubble Quality Group B	
Specific Gravity d	4.54
Remarks	

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