

SK-1300

 Code(d) **459678**

 Code(e) **460677**

Refractive Index n_d	1.45863	Abbe Number	v_d	67.8	Dispersion n_F-n_C	0.00676
	1.458630			67.84		0.006760
Refractive Index n_e	1.460244	Abbe Number	v_e	67.69	Dispersion n_F-n_C'	0.006799

Refractive Indices		
$\lambda(\mu\text{m})$		
n_{2325}	2.32542	1.43315
n_{1970}	1.97009	1.43872
n_{1530}	1.52958	1.44445
n_{1129}	1.12864	1.44904
n_t	1.01398	1.45041
n_s	0.85211	1.45263
$n_{A'}$	0.76819	1.45406
n_r	0.70652	1.45531
n_C	0.65627	1.45653
$n_{C'}$	0.64385	1.45687
$n_{\text{He-Ne}}$	0.63280	1.45718
n_D	0.58929	1.45857
n_d	0.58756	1.45863
n_e	0.54607	1.46024
n_F	0.48613	1.46329
$n_{F'}$	0.47999	1.46367
$n_{\text{He-Cd}}$	0.44157	1.46639
n_g	0.435835	1.46686
n_h	0.404656	1.46979
n_i	0.365015	1.47471

Deviation of Relative Dispersions $\Delta\theta$ from "Normal"	
$\Delta\theta_{C,t}$	0.0403
$\Delta\theta_{C,A'}$	0.0083
$\Delta\theta_{g,d}$	-0.0063
$\Delta\theta_{g,F}$	-0.0040
$\Delta\theta_{i,g}$	0.0042

Constants of Dispersion Formula	
A_1	7.44386780E-01
A_2	3.60198890E-01
A_3	9.18623119E-01
B_1	4.95119834E-03
B_2	1.41130274E-02
B_3	1.00428510E+02

Other Properties	
Bubble Quality Group	1
Specific Gravity	2.20
Remarks	

Temperature Coefficients of Refractive Index							
Range of Temperature (°C)	dn/dt relative (10 ⁻⁶ /°C)						
	t	C'	He-Ne	D	e	F'	g
-40~20	-	-	-	-	-	-	-
-20~0	-	-	-	-	-	-	-
0~20	-	-	-	-	-	-	-
20~25	9.7	10.0	10.4	10.3	10.2	10.5	10.7
20~40	-	-	-	-	-	-	-
40~60	-	-	-	-	-	-	-
60~80	-	-	-	-	-	-	-

Partial Dispersions	
n_C-n_t	0.006120
$n_C-n_{A'}$	0.002477
n_d-n_C	0.002097
n_e-n_C	0.003711
n_g-n_d	0.008230
n_g-n_F	0.003567
n_h-n_g	0.002925
n_i-n_g	0.007850
n_C-n_t	0.006457
$n_e-n_{C'}$	0.003374
$n_{F'-n_e}$	0.003425
$n_i-n_{F'}$	0.011041

Thermal Properties	
Strain Point StP (°C)	1060
Annealing Point AP (°C)	1160
Transformation Temperature Tg (°C)	-
Yield Point At (°C)	-
Softening Point SP (°C)	1700
Expansion Coefficients (+0~+200°C)	5.5
α (10 ⁻⁷ /°C) (+100~+300°C)	-
Thermal Conductivity k (W/m·K)	1.1 (26°C)

Mechanical Properties	
Young's Modulus E (10 ⁸ N/m ²)	714
Rigidity Modulus G (10 ⁸ N/m ²)	309
Poisson's Ratio σ	0.17
Knoop Hardness Hk[Class]	6400 7
Abrasion Aa	-
Photoelastic Constant β (nm/cm/10 ⁵ Pa)	3.5

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

Impurities	
OH content (ppm)	<200
Cl content (ppm)	<1

Relative Partial Dispersions	
$\theta_{C,t}$	0.9053
$\theta_{C,A'}$	0.3664
$\theta_{d,C}$	0.3102
$\theta_{e,C}$	0.549
$\theta_{g,d}$	1.2175
$\theta_{g,F}$	0.5277
$\theta_{h,g}$	0.4327
$\theta_{i,g}$	1.1612
$\theta'_{C,t}$	0.9497
$\theta'_{e,C'}$	0.4962
$\theta'_{F',e}$	0.5038
$\theta'_{i,F'}$	1.6239

Coloring			
λ_{80}		λ_5	
λ_{70}			

Internal Transmittance	
$\lambda(\text{nm})$	$\tau_{10\text{mm}}$
140	0.000
150	0.005
160	0.637
170	0.978
180	0.992
190	0.993
200	0.993
210	0.995
220	0.997
230	0.997
240	0.998
250	0.999~
260	0.999~
270	0.999~
280	0.999~
290	0.999~
300	0.999~
320	0.999~
340	0.999~
360	0.999~
380	0.999~
400	0.999~
450	0.999~
500	0.999~
550	0.999~
600	0.999~
650	0.999~
700	0.999~
800	0.999~
900	0.999~
1000	0.999~
1200	0.999~
1400	0.998
1600	0.999~
1800	0.999~
2000	0.999~
2200	0.982
2400	0.991
2500	0.982

0.999~:better than 0.999