S-LAH65VS

Code(d) **804465**
Code(e) **808463**

Refractive Index	n_d	**1.80400** 1.804000	Abbe Number	ν_d **46.53**	Dispersion	n_F-n_C **0.017281**
Refractive Index	n_e	1.808112	Abbe Number	ν_e 46.28	Dispersion	$n_{F'}$-$n_{C'}$ 0.017463

Refractive Indices		
λ(μm)		
n_{2325}	2.32542	1.76127
n_{1970}	1.97009	1.76833
n_{1530}	1.52958	1.77597
n_{1129}	1.12864	1.78303
n_t	1.01398	1.78548
n_s	0.85211	1.78991
$n_{A'}$	0.76819	1.79302
n_r	0.70652	1.79590
n_C	0.65627	1.79882
$n_{C'}$	0.64385	1.79964
n_{He-Ne}	0.6328	1.80040
n_D	0.58929	1.80385
n_d	0.58756	1.80400
n_e	0.54607	1.80811
n_F	0.48613	1.81610
$n_{F'}$	0.47999	1.81710
n_{He-Cd}	0.44157	1.82445
n_g	0.435835	1.82573
n_h	0.404656	1.83385
n_i	0.365015	1.84792

Constants of Dispersion Formula	
A_1	1.76068422E+00
A_2	4.14128906E-01
A_3	1.33415439E+00
B_1	8.53607198E-03
B_2	3.01826383E-02
B_3	9.80942100E+01

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	4.0
Phosphate Resistance PR	1.0

Mechanical Properties		
Young's Modulus E (GPa)	122.3	
Rigidity Modulus G (GPa)	47.1	
Poisson's Ratio σ	0.300	
Knoop Hardness Hk[Class]	720	7
Abrasion Aa	61	

Partial Dispersions	
n_C-n_t	0.013334
n_C-$n_{A'}$	0.005801
n_d-n_C	0.005184
n_e-n_C	0.009296
n_g-n_d	0.021734
n_g-n_F	0.009637
n_h-n_g	0.008114
n_i-n_g	0.022188
n_C-n_t	0.014154
n_e-$n_{C'}$	0.008476
$n_{F'}$-n_e	0.008987
n_i-$n_{F'}$	0.030823

Relative Partial Dispersions	
$\theta_{C,t}$	0.7716
$\theta_{C,A'}$	0.3357
$\theta_{d,C}$	0.3000
$\theta_{e,C}$	0.5379
$\theta_{g,d}$	1.2577
$\theta_{g,F}$	0.5577
$\theta_{h,g}$	0.4695
$\theta_{i,g}$	1.2840
$\theta'_{C',t}$	0.8105
$\theta'_{e,C'}$	0.4854
$\theta'_{F',e}$	0.5146
$\theta'_{i,F'}$	1.7650

Deviation of Relative Dispersions Δθfrom "Normal"	
$\Delta\theta_{C,t}$	0.0066
$\Delta\theta_{C,A'}$	0.0034
$\Delta\theta_{g,d}$	-0.0104
$\Delta\theta_{g,F}$	-0.0085
$\Delta\theta_{i,g}$	-0.0514

Thermal Properties		
Strain Point StP (℃)		648
Annealing Point AP (℃)		677
Transformation Temperature Tg (℃)		691
Yield Point At (℃)		720
Softening Point SP (℃)		745
Expansion Coefficients α (10^{-7} K^{-1})	(-30~+70℃)	61
	(+100~+300℃)	75
Thermal Conductivity λ W/(m·K)		0.856

Coloring			
λ_{80}	380	λ_5	310
λ_{70}			

Internal transmission			
$\lambda_{0.80}$	347	$\lambda_{0.05}$	310

CCI		
B	G	R
0.00	0.40	0.42

Internal Transmittance	
λ(nm)	τ 10mm
280	
290	
300	
310	0.05
320	0.25
330	0.53
340	0.72
350	0.83
360	0.89
370	0.934
380	0.957
390	0.971
400	0.979
420	0.987
440	0.991
460	0.993
480	0.996
500	0.997
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	0.996
1800	0.989
2000	0.968
2200	0.916
2400	0.72

Temperature Coefficients of Refractive Index							
Range of Temperature (℃)	Δn/ΔT relative ($10^{-6}$$K^{-1}$)						
	t	C'	He-Ne	D	e	F'	g
-40~-20	3.6	4.2	4.3	4.4	4.7	5.2	5.8
-20~ 0	3.5	4.2	4.2	4.4	4.7	5.3	5.9
0~20	3.5	4.2	4.2	4.4	4.7	5.3	5.9
20~40	3.5	4.2	4.2	4.4	4.7	5.3	6.0
40~60	3.5	4.3	4.3	4.5	4.8	5.5	6.1
60~80	3.7	4.4	4.5	4.7	5.0	5.7	6.4

Other Properties	
Photoelastic Constant β nm/(cm·10^5Pa)	1.27
Specific Gravity d	4.46
Remarks	

OHARA 24-01

※The name of the glass type is the model number assigned based on the main components of the composition: large, medium, small refractive index and serial number.