

Q-SK15S

 $n_d = 1.622910$
 $n_e = 1.625458$
 $v_d = 58.30$
 $v_e = 58.05$

Glass code (d)
623583
Glass code (e)
625581

Spectral l.	Refractive idx
2.058	1.59608
1.970	1.59746
1.530	1.60372
1.129	1.60912
1.064	1.61008
t	1.61087
s	1.61390
A'	1.615943
r	1.617808
C	1.619659
C'	1.620177
He-Ne	1.620660
D	1.622815
d	1.622910
e	1.625458
F	1.630343
F'	1.630952
g	1.636153
h	1.640976
0.389	1.643919
i	1.649203

Coef. disp. form. (pwr ser.)	
A0	2.590736886E+00
A1	-1.06523029E-02
A2	-9.98472173E-05
A3	1.54224112E-02
A4	2.52371925E-04
A5	-9.42642262E-07
A6	3.09905553E-07
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.010684
F'-C'	0.010775
C-t	0.008784
C-A'	0.003716
d-C	0.003251
e-C	0.005799
g-d	0.013243
g-F	0.005810
h-g	0.004823
i-g	0.013050
C'-t	0.009302
e-C'	0.005281
F'-e	0.005494
i-F'	0.018251

Relative partial dispersion	
C-t/F-C	0.8222
C-A'/F-C	0.3478
d-C/F-C	0.3043
e-C/F-C	0.5428
g-d/F-C	1.2395
g-F/F-C	0.5438
h-g/F-C	0.4514
i-g/F-C	1.2215
C'-t/F'-C'	0.8633
e-C'/F'-C'	0.4901
F'-e/F'-C'	0.5099
i-F'/F'-C'	1.6938

Deviation of relative partial disp.	
ΔPdC	0.0008
ΔPgF	-0.0027

Internal CC (80%/5%)	
328/270	

Color Code (80%/5%)	
340/270	

CCI	
B	0.00
G	0.18
R	0.15

Thermal properties	
CTE(-30,70) [1E-7/°C]	71
CTE(100,300) [1E-7/°C]	86
Tg [°C]	540
At [°C]	573
Ht condct. [W/m·K]	0.859
Sp. heat [kJ/kg·K]	0.644
diffus. [1E-6 m2/sec]	0.410

Chemical properties [class]	
Acid res. (surface)	5
Alkaline detergent res.	4
Climate resistance	3
Water res. (powder)	1
Acid res. (powder)	4

Mechanical properties	
Knoop hardness	517 (5)
Abrasion hardness	132
Young's mod. [GPa]	95.4
Shear mod. [GPa]	37.5
Poisson's ratio	0.274
Stress optical coef. [1E-5 nm/cm/Pa]	1.76

Internal trans. (10mm)		
λ [nm]	τ	
280	0.10	
290	0.21	
300	0.38	
310	0.55	
320	0.70	
330	0.82	
340	0.89	
350	0.938	
360	0.965	
370	0.980	
380	0.988	
390	0.991	
400	0.994	
420	0.995	
440	0.994	
460	0.996	
480	0.997	
500	0.998	
550	0.999	
600	0.999	
650	0.998	
700	0.998	
800	0.996	
900	0.995	
1000	0.996	
1200	0.998	
1400	0.993	
1600	0.992	
1800	0.984	
2000	0.973	
2200	0.924	
2400	0.80	

Specific gravity	
3.25	

Relative $\Delta n / \Delta T$ [1E-6/°C]																
Temp. [°C]	1.083	t	s	A'	r	C	C'	He-Ne	d	e	F	F'	g	h	0.389	
80 to 90(ref.)	3.2	3.3	3.4	3.6	3.7	3.8	3.8	3.9	4.0	4.2	4.6	4.7	5.1	5.5	5.8	
60 to 80(ref.)	3.1	3.2	3.3	3.4	3.6	3.7	3.7	3.7	3.9	4.1	4.5	4.5	4.9	5.4	5.6	
40 to 60	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.6	3.7	3.9	4.3	4.3	4.7	5.1	5.4	
20 to 40	2.9	3.0	3.1	3.2	3.3	3.4	3.4	3.5	3.6	3.8	4.1	4.2	4.6	5.0	5.2	
0 to 20	2.9	2.9	3.0	3.1	3.2	3.3	3.4	3.4	3.5	3.7	4.0	4.1	4.4	4.8	5.0	
-20 to 0	2.9	2.9	3.0	3.1	3.2	3.3	3.3	3.4	3.5	3.6	4.0	4.0	4.4	4.7	4.9	
-40 to -20	2.9	3.0	3.1	3.2	3.3	3.3	3.4	3.4	3.5	3.7	4.0	4.0	4.3	4.7	4.9	
-60 to -40(ref.)	3.1	3.1	3.2	3.3	3.4	3.5	3.5	3.5	3.6	3.8	4.1	4.1	4.4	4.7	4.9	
-70 to -60(ref.)	3.3	3.3	3.4	3.5	3.6	3.7	3.7	3.7	3.8	4.0	4.2	4.3	4.6	4.9	5.0	

Absolute $\Delta n / \Delta T$ [1E-6/°C]																
Temp. [°C]	1.083	t	s	A'	r	C	C'	He-Ne	d	e	F	F'	g	h	0.389	
80 to 90	2.2	2.3	2.4	2.6	2.7	2.8	2.8	2.8	3.0	3.2	3.6	3.6	4.1	4.5	4.8	
60 to 80	2.1	2.1	2.2	2.3	2.5	2.6	2.6	2.6	2.8	3.0	3.3	3.4	3.8	4.2	4.5	
40 to 60	1.8	1.8	2.0	2.1	2.2	2.3	2.3	2.3	2.5	2.7	3.0	3.1	3.5	3.9	4.1	
20~40	1.5	1.6	1.7	1.8	1.9	2.0	2.0	2.1	2.2	2.4	2.7	2.7	3.1	3.5	3.7	
0 to 20	1.3	1.3	1.4	1.5	1.6	1.7	1.7	1.8	1.9	2.1	2.4	2.4	2.8	3.1	3.4	
-20 to 0	1.0	1.1	1.2	1.3	1.3	1.4	1.5	1.5	1.6	1.8	2.1	2.1	2.4	2.8	3.0	
-40 to -20	0.8	0.8	0.9	1.0	1.1	1.2	1.2	1.2	1.3	1.5	1.7	1.8	2.1	2.4	2.6	
-60 to -40	0.5	0.5	0.6	0.7	0.8	0.9	0.9	0.9	1.0	1.2	1.4	1.4	1.7	2.0	2.2	
-70 to -60	0.3	0.3	0.4	0.5	0.6	0.7	0.7	0.7	0.8	0.9	1.2	1.2	1.5	1.8	1.9	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.39092543E-01
Q1	9.15185578E+01
P2	3.27748556E-02
Q2	-1.27593030E-02
P3	3.13749678E-01
Q3	8.33106741E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.6	4.2
Frac. eq. (ref.)	2.7	4.4

Prod. Freq. (A to D)	A
----------------------	---

Similar glass type			
OHARA	-	HOYA	-
C.D.G.M	-	SCHOTT	-

-	-
2019-4-1	Transmittance
2015-4-1	1st edition