

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	2.59073686E+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
StP [°C]	490
AP [°C]	524
SP [°C]	649
Ht condct. [W/m·K]	0.859
Sp. heat [kJ/kg·K]	0.644
Ht 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	-

2020-4-1	StP,AP,SP
2019-4-1	Transmittance
2015-4-1	1st edition