Q-PSKH52S

n_d = 1.618750 n_e = 1.621066

ν_d = 63.73 ν_e = 63.45

Glass code (d)
619637
Glass code (e)
621635

Spectral l.	Refractive idx
2.058	1.59442
1.970	1.59566
1.530	1.60129
1.129	1.60619
1.064	1.60706
t	1.60778
s	1.61054
A'	1.612402
r	1.614102
C	1.615790
C'	1.616262
He-Ne	1.616702
D	1.618663
d	1.618750
e	1.621066
F	1.625499
F'	1.626050
g	1.630752
h	1.635099
0.389	1.637743
i	1.642477

Coef. disp. form. (pwr ser.)	
A0	2.58093502E+00
A1	-9.59665919E-03
A2	-8.21742644E-05
A3	1.41837329E-02
A4	1.94644982E-04
A5	4.47243666E-07
A6	1.47296513E-07
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.009709
F'-C'	0.009788
C-t	0.008009
C-A'	0.003388
d-C	0.002960
e-C	0.005276
g-d	0.012002
g-F	0.005253
h-g	0.004347
i-g	0.011725
C'-t	0.008481
e-C'	0.004804
F'-e	0.004984
i-F'	0.016427

Relative partial dispersion	
C-t／F-C	0.8249
C-A'／F-C	0.3490
d-C／F-C	0.3049
e-C／F-C	0.5434
g-d／F-C	1.2362
g-F／F-C	0.5410
h-g／F-C	0.4477
i-g／F-C	1.2076
C'-t／F'-C'	0.8665
e-C'／F'-C'	0.4908
F'-e／F'-C'	0.5092
i-F'／F'-C'	1.6783

Deviation of relative partial disp.	
ΔPdC	-0.0011
ΔPgF	0.0036

Internal CC (80%/5%)
332/284

Color Code (80%/5%)
345/285

CCI	
B	0.00
G	0.22
R	0.19

Thermal properties	
CTE(-30,70) [1E-7/℃]	86
CTE(100,300) [1E-7/℃]	109
Tg [℃]	529
At [℃]	572
Ht cndct. [W/m･K]	0.654
Sp. heat [kJ/kg･K]	0.576
diffus. [1E-6 m2/se	0.324

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

Mechanical properties	
Knoop hardness	393 (4)
Abrasion hardness	328
Young's mod. [GPa]	79.7
Shear mod. [GPa]	31.0
Poisson's ratio	0.285
Stress optical coef. [1E-5 nm/cm／Pa]	1.55

Internal trans. (10mm)	
λ [nm]	τ
280	0.03
290	0.10
300	0.26
310	0.45
320	0.64
330	0.77
340	0.87
350	0.926
360	0.959
370	0.977
380	0.986
390	0.991
400	0.994
420	0.994
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	0.998
900	0.998
1000	0.998
1200	0.999
1400	0.998
1600	0.994
1800	0.981
2000	0.965
2200	0.920
2400	0.87

Specific gravity
3.51

Relative Δn/ΔT [1E-6/℃]

Temp. [℃]	1.083	t	s	A'	r	C	C'	He-Ne	d	e	F	F'	g	h	0.389
80 to 90(ref.)	-1.8	-1.7	-1.7	-1.5	-1.4	-1.3	-1.3	-1.3	-1.1	-1.0	-0.7	-0.7	-0.4	-0.1	0.2
60 to 80(ref.)	-1.8	-1.8	-1.7	-1.6	-1.5	-1.4	-1.4	-1.3	-1.2	-1.1	-0.8	-0.8	-0.5	-0.2	0.0
40 to 60	-1.9	-1.8	-1.7	-1.6	-1.6	-1.5	-1.4	-1.4	-1.3	-1.2	-0.9	-0.9	-0.6	-0.3	-0.1
20 to 40	-1.9	-1.9	-1.8	-1.7	-1.6	-1.5	-1.5	-1.4	-1.3	-1.2	-1.0	-0.9	-0.6	-0.4	-0.2
0 to 20	-1.9	-1.9	-1.7	-1.7	-1.6	-1.5	-1.5	-1.5	-1.3	-1.2	-1.0	-0.9	-0.7	-0.4	-0.2
-20 to 0	-1.8	-1.8	-1.7	-1.6	-1.5	-1.5	-1.4	-1.4	-1.3	-1.2	-1.0	-0.9	-0.7	-0.4	-0.2
-40 to -20	-1.7	-1.7	-1.6	-1.5	-1.4	-1.3	-1.3	-1.3	-1.2	-1.1	-0.9	-0.8	-0.6	-0.3	-0.2
-60 to -40(ref.)	-1.5	-1.4	-1.4	-1.3	-1.2	-1.1	-1.1	-1.1	-1.0	-0.9	-0.7	-0.7	-0.4	-0.2	0.0
-70 to -60(ref.)	-1.2	-1.2	-1.1	-1.0	-1.0	-0.9	-0.9	-0.9	-0.8	-0.7	-0.5	-0.4	-0.2	0.0	0.2

Absolute Δn/ΔT [1E-6/℃]

Temp. [℃]	1.083	t	s	A'	r	C	C'	He-Ne	d	e	F	F'	g	h	0.389
80 to 90	-2.8	-2.7	-2.6	-2.5	-2.4	-2.3	-2.3	-2.3	-2.2	-2.0	-1.7	-1.7	-1.4	-1.1	-0.9
60 to 80	-2.9	-2.9	-2.8	-2.7	-2.6	-2.5	-2.5	-2.4	-2.3	-2.2	-1.9	-1.9	-1.6	-1.3	-1.1
40 to 60	-3.1	-3.1	-3.0	-2.9	-2.8	-2.7	-2.7	-2.6	-2.5	-2.4	-2.1	-2.1	-1.8	-1.6	-1.4
20～40	-3.3	-3.3	-3.2	-3.1	-3.0	-2.9	-2.9	-2.9	-2.7	-2.6	-2.4	-2.4	-2.1	-1.8	-1.6
0 to 20	-3.5	-3.4	-3.3	-3.3	-3.2	-3.1	-3.1	-3.1	-3.0	-2.8	-2.6	-2.6	-2.3	-2.1	-1.9
-20 to 0	-3.7	-3.6	-3.5	-3.5	-3.4	-3.3	-3.3	-3.3	-3.2	-3.1	-2.9	-2.8	-2.6	-2.4	-2.2
-40 to -20	-3.8	-3.8	-3.7	-3.7	-3.6	-3.5	-3.5	-3.5	-3.4	-3.3	-3.1	-3.1	-2.8	-2.6	-2.5
-60 to -40	-4.0	-4.0	-3.9	-3.9	-3.8	-3.7	-3.7	-3.7	-3.6	-3.5	-3.3	-3.3	-3.1	-2.9	-2.7
-70 to -60	-4.2	-4.2	-4.1	-4.0	-4.0	-3.9	-3.9	-3.9	-3.8	-3.7	-3.5	-3.5	-3.3	-3.1	-2.9

Coef. disp. form. (frac. eq.)(ref.)	
P1	1.18516610E-01
Q1	8.69879063E+01
P2	7.20012698E-02
Q2	1.46327404E-02
P3	2.73103611E-01
Q3	3.60163368E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.4	4.6
Frac. eq. (ref.)	0.5	6.9

Prod. Freq. (A to D)	A

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

-	
-	
2019-4-1	1st edition

HIKARI GLASS CO., LTD.