

Q-PSKH2S

$n_d = 1.618750$

$n_e = 1.621066$

$v_d = 63.74$

$v_e = 63.45$

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

Spectral l.	Refractive idx
2.058	1.59451
1.970	1.59574
1.530	1.60134
1.129	1.60620
1.064	1.60707
t	1.60779
s	1.61054
A'	1.612404
r	1.614103
C	1.615791
C'	1.616262
He-Ne	1.616702
D	1.618663
d	1.618750
e	1.621066
F	1.625499
F'	1.626050
g	1.630753
h	1.635100
0.389	1.637745
i	1.642481

Coef. disp. form. (pwr ser.)	
A0	2.58079919E+00
A1	-9.46942822E-03
A2	-8.88975012E-05
A3	1.42435389E-02
A4	1.81224951E-04
A5	1.94681195E-06
A6	8.51820873E-08
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.009708
F'-C'	0.009788
C-t	0.007999
C-A'	0.003387
d-C	0.002959
e-C	0.005275
g-d	0.012003
g-F	0.005254
h-g	0.004347
i-g	0.011728
C'-t	0.008470
e-C'	0.004804
F'-e	0.004984
i-F'	0.016431

Relative partial dispersion	
C-t/F-C	0.8240
C-A'/F-C	0.3489
d-C/F-C	0.3048
e-C/F-C	0.5434
g-d/F-C	1.2364
g-F/F-C	0.5412
h-g/F-C	0.4478
i-g/F-C	1.2081
C'-t/F'-C'	0.8653
e-C'/F'-C'	0.4908
F'-e/F'-C'	0.5092
i-F'/F'-C'	1.6787

Deviation of relative partial disp.	
ΔPdC	-0.0012
ΔPgF	0.0038

Internal CC (80%/5%)	
339/288	
Color Code (80%/5%)	
350/290	
CCI	
B	-
G	-
R	-

Thermal properties	
CTE(-30,70) [1E-7/°C]	93
CTE(100,300) [1E-7/°C]	114
Tg [°C]	509
At [°C]	552
StP [°C]	-
AP [°C]	-
SP [°C]	-
Ht condct. [W/m·K]	0.709
Sp. heat [kJ/kg·K]	0.606
Ht diffus. [1E-6 m2/sec]	0.332

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

Mechanical properties	
Knoop hardness	388 (4)
Abrasion hardness	350
Young's mod. [GPa]	78.4
Shear mod. [GPa]	30.6
Poisson's ratio	0.282
Stress optical coef. [1E-5 nm/cm/Pa]	1.68

Internal trans. (10mm)	
λ [nm]	τ
280	0.01
290	0.06
300	0.17
310	0.33
320	0.51
330	0.68
340	0.81
350	0.89
360	0.938
370	0.964
380	0.978
390	0.983
400	0.984
420	0.981
440	0.981
460	0.985
480	0.988
500	0.990
550	0.993
600	0.990
650	0.990
700	0.991
800	0.989
900	0.997
1000	0.995
1200	0.997
1400	0.996
1600	0.986
1800	0.967
2000	0.945
2200	0.88
2400	0.83

Specific gravity	
3.52	

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.)	-2.5	-2.4	-2.4	-2.2	-2.1	-2.1	-2.0	-2.0	-1.9	-1.8	-1.5	-1.4	-1.1	-0.8	-0.6	
60 to 80(ref.)	-2.5	-2.5	-2.3	-2.3	-2.2	-2.1	-2.1	-2.1	-1.9	-1.8	-1.5	-1.5	-1.2	-0.9	-0.7	
40 to 60	-2.5	-2.5	-2.4	-2.3	-2.2	-2.1	-2.1	-2.1	-2.0	-1.9	-1.6	-1.6	-1.3	-1.0	-0.8	
20 to 40	-2.5	-2.5	-2.4	-2.3	-2.2	-2.2	-2.1	-2.1	-2.0	-1.9	-1.6	-1.6	-1.3	-1.0	-0.8	
0 to 20	-2.5	-2.5	-2.4	-2.3	-2.2	-2.1	-2.1	-2.1	-2.0	-1.9	-1.6	-1.6	-1.3	-1.0	-0.9	
-20 to 0	-2.4	-2.4	-2.3	-2.2	-2.1	-2.1	-2.0	-2.0	-1.9	-1.8	-1.6	-1.5	-1.3	-1.0	-0.8	
-40 to -20	-2.2	-2.2	-2.1	-2.0	-2.0	-1.9	-1.9	-1.9	-1.8	-1.7	-1.5	-1.4	-1.2	-0.9	-0.8	
-60 to -40(ref.)	-2.0	-2.0	-1.9	-1.8	-1.7	-1.7	-1.7	-1.6	-1.6	-1.4	-1.2	-1.2	-1.0	-0.7	-0.6	
-70 to -60(ref.)	-1.7	-1.7	-1.6	-1.6	-1.5	-1.4	-1.4	-1.4	-1.3	-1.2	-1.0	-1.0	-0.7	-0.5	-0.4	

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	-3.5	-3.4	-3.3	-3.2	-3.2	-3.1	-3.0	-3.0	-2.9	-2.8	-2.5	-2.5	-2.2	-1.8	-1.6	
60 to 80	-3.6	-3.6	-3.4	-3.4	-3.3	-3.2	-3.2	-3.2	-3.0	-2.9	-2.7	-2.6	-2.3	-2.0	-1.8	
40 to 60	-3.7	-3.7	-3.6	-3.5	-3.5	-3.4	-3.4	-3.3	-3.2	-3.1	-2.9	-2.8	-2.5	-2.2	-2.0	
20~40	-3.9	-3.9	-3.8	-3.7	-3.6	-3.6	-3.5	-3.5	-3.4	-3.3	-3.1	-3.0	-2.8	-2.5	-2.3	
0 to 20	-4.1	-4.0	-4.0	-3.9	-3.8	-3.7	-3.7	-3.7	-3.6	-3.5	-3.3	-3.2	-3.0	-2.7	-2.5	
-20 to 0	-4.2	-4.2	-4.1	-4.1	-4.0	-3.9	-3.9	-3.9	-3.8	-3.7	-3.5	-3.5	-3.2	-3.0	-2.8	
-40 to -20	-4.4	-4.4	-4.3	-4.2	-4.2	-4.1	-4.1	-4.1	-4.0	-3.9	-3.7	-3.7	-3.4	-3.2	-3.0	
-60 to -40	-4.6	-4.5	-4.5	-4.4	-4.3	-4.3	-4.3	-4.2	-4.2	-4.1	-3.9	-3.9	-3.6	-3.4	-3.3	
-70 to -60	-4.7	-4.7	-4.6	-4.5	-4.5	-4.4	-4.4	-4.4	-4.3	-4.2	-4.0	-4.0	-3.8	-3.6	-3.5	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.22023995E-01
Q1	9.01520619E+01
P2	7.64803847E-02
Q2	1.43077787E-02
P3	2.68618641E-01
Q3	3.51371230E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.3	5.5
Frac. eq. (ref.)	0.3	5.4

Prod. Freq. (A to D)	A
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Similar glass type			
OHARA	-	HOYA	-
C.D.G.M	-	SCHOTT	-

2023-9-1	Reprinted
2019-4-1	Deleted
2015-4-1	Color Code