

Q-PSKH1S

 $n_d = 1.592550$
 $n_e = 1.594633$
 $v_d = 67.86$
 $v_e = 67.50$

Glass code (d)	593679
Glass code (e)	595675

Spectral l.	Refractive idx
2.058	1.57281
1.970	1.57370
1.530	1.57784
1.129	1.58164
1.064	1.58235
t	1.58295
s	1.58528
A'	1.586903
r	1.588401
C	1.589901
C'	1.590322
He-Ne	1.590715
D	1.592472
d	1.592550
e	1.594633
F	1.598633
F'	1.599131
g	1.603384
h	1.607317
0.389	1.609711
i	-

Coef. disp. form. (pwr ser.)	
A0	2.50007622E+00
A1	-6.71624527E-03
A2	-5.14442840E-05
A3	1.28098993E-02
A4	1.58900364E-04
A5	6.45646017E-07
A6	1.36642151E-07
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.008732
F'-C'	0.008809
C-t	0.006952
C-A'	0.002998
d-C	0.002649
e-C	0.004732
g-d	0.010834
g-F	0.004751
h-g	0.003933
i-g	-
C'-t	0.007373
e-C'	0.004311
F'-e	0.004498
i-F'	-

Relative partial dispersion	
C-t/F-C	0.7962
C-A'/F-C	0.3433
d-C/F-C	0.3034
e-C/F-C	0.5419
g-d/F-C	1.2407
g-F/F-C	0.5441
h-g/F-C	0.4504
i-g/F-C	-
C'-t/F'-C'	0.8370
e-C'/F'-C'	0.4894
F'-e/F'-C'	0.5106
i-F'/F'-C'	-

Deviation of relative partial disp.	
ΔPdC	-0.0045
ΔPgF	0.0136

Internal CC (80%/5%)	
344/274	
Color Code (80%/5%)	
355/275	
CCI	
B	0.00
G	0.20
R	0.18

Thermal properties	
CTE(-30,70) [1E-7/°C]	114
CTE(100,300) [1E-7/°C]	132
Tg [°C]	564
At [°C]	591
StP [°C]	516
AP [°C]	545
SP [°C]	639
Ht condct. [W/m·K]	0.663
Sp. heat [kJ/kg·K]	0.522
Ht diffus. [1E-6 m2/sec]	0.309

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

Mechanical properties	
Knoop hardness	290 (3)
Abrasion hardness	540
Young's mod. [GPa]	76.0
Shear mod. [GPa]	29.3
Poisson's ratio	0.298
Stress optical coef. [1E-5 nm/cm/Pa]	0.60

Internal trans. (10mm)	
λ [nm]	τ
280	0.06
290	0.10
300	0.18
310	0.29
320	0.45
330	0.61
340	0.76
350	0.86
360	0.927
370	0.962
380	0.980
390	0.989
400	0.992
420	0.994
440	0.994
460	0.995
480	0.996
500	0.998
550	0.999
600	0.998
650	0.998
700	0.997
800	0.996
900	0.996
1000	0.997
1200	0.998
1400	0.999
1600	0.999
1800	0.997
2000	0.993
2200	0.989
2400	0.983

Specific gravity	
4.1	

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.)	-6.1	-6.1	-6.0	-5.9	-5.9	-5.8	-5.8	-5.8	-5.7	-5.6	-5.4	-5.3	-5.0	-4.7	-4.5
60 to 80(ref.)	-6.1	-6.0	-5.9	-5.9	-5.8	-5.8	-5.8	-5.7	-5.7	-5.5	-5.3	-5.3	-5.0	-4.7	-4.5
40 to 60	-6.0	-6.0	-5.9	-5.8	-5.8	-5.7	-5.7	-5.7	-5.6	-5.5	-5.3	-5.2	-5.0	-4.7	-4.5
20 to 40	-5.9	-5.9	-5.8	-5.7	-5.7	-5.6	-5.6	-5.6	-5.5	-5.4	-5.2	-5.1	-4.9	-4.6	-4.4
0 to 20	-5.7	-5.7	-5.6	-5.6	-5.5	-5.5	-5.4	-5.4	-5.3	-5.2	-5.0	-5.0	-4.8	-4.5	-4.3
-20 to 0	-5.5	-5.5	-5.4	-5.4	-5.3	-5.3	-5.3	-5.2	-5.2	-5.1	-4.9	-4.8	-4.6	-4.4	-4.2
-40 to -20	-5.3	-5.3	-5.2	-5.1	-5.1	-5.0	-5.0	-5.0	-4.9	-4.8	-4.6	-4.6	-4.4	-4.1	-4.0
-60 to -40(ref.)	-4.9	-4.9	-4.8	-4.8	-4.7	-4.7	-4.7	-4.6	-4.6	-4.5	-4.3	-4.3	-4.0	-3.8	-3.7
-70 to -60(ref.)	-4.6	-4.6	-4.5	-4.5	-4.4	-4.3	-4.3	-4.3	-4.2	-4.1	-4.0	-3.9	-3.7	-3.5	-3.4

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	-7.1	-7.1	-7.0	-6.9	-6.9	-6.8	-6.8	-6.8	-6.7	-6.6	-6.4	-6.3	-6.1	-5.8	-5.6
60 to 80	-7.1	-7.1	-7.0	-7.0	-6.9	-6.9	-6.8	-6.8	-6.7	-6.6	-6.4	-6.4	-6.1	-5.9	-5.7
40 to 60	-7.2	-7.2	-7.1	-7.0	-7.0	-6.9	-6.9	-6.9	-6.8	-6.7	-6.5	-6.5	-6.2	-6.0	-5.8
20~40	-7.2	-7.2	-7.2	-7.1	-7.0	-7.0	-7.0	-7.0	-6.9	-6.8	-6.6	-6.6	-6.3	-6.1	-5.9
0 to 20	-7.3	-7.3	-7.2	-7.2	-7.1	-7.0	-7.0	-7.0	-6.9	-6.8	-6.7	-6.6	-6.4	-6.2	-6.0
-20 to 0	-7.4	-7.3	-7.3	-7.2	-7.2	-7.1	-7.1	-7.1	-7.0	-6.9	-6.7	-6.7	-6.5	-6.3	-6.1
-40 to -20	-7.4	-7.4	-7.3	-7.3	-7.2	-7.2	-7.2	-7.1	-7.1	-7.0	-6.8	-6.8	-6.6	-6.4	-6.2
-60 to -40	-7.5	-7.5	-7.4	-7.3	-7.3	-7.2	-7.2	-7.2	-7.1	-7.1	-6.9	-6.9	-6.7	-6.5	-6.3
-70 to -60	-7.5	-7.5	-7.4	-7.4	-7.3	-7.3	-7.3	-7.3	-7.2	-7.1	-7.0	-6.9	-6.7	-6.5	-6.4

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.07610379E-01
Q1	1.08426062E+02
P2	3.92191498E-02
Q2	1.71487165E-02
P3	2.94126331E-01
Q3	4.17899731E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.4	6.9
Frac. eq. (ref.)	0.6	7.3

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

2020-4-1	StP,AP,SP
2019-4-1	Transmittance
2015-4-1	Color Code