

# J-PSK03

$n_d = 1.603000$

$n_e = 1.605199$

$v_d = 65.44$

$v_e = 65.17$

Glass code (d)	603654
Glass code (e)	605652

Spectral l.	Refractive idx
2.058	1.57914
1.970	1.58040
1.530	1.58607
1.129	1.59092
1.064	1.59178
t	1.59248
s	1.59515
A'	1.596945
r	1.598572
C	1.600183
C'	1.600633
He-Ne	1.601052
D	1.602918
d	1.603000
e	1.605199
F	1.609398
F'	1.609919
g	1.614364
h	1.618467
0.389	1.620961
i	1.625420

Coef. disp. form. (pwr ser.)	
A0	2.53267453E+00
A1	-9.50416844E-03
A2	-1.06883723E-04
A3	1.34397360E-02
A4	1.41770605E-04
A5	4.73043880E-06
A6	-8.62000830E-08
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.009215
F'-C'	0.009286
C-t	0.007701
C-A'	0.003238
d-C	0.002817
e-C	0.005016
g-d	0.011364
g-F	0.004966
h-g	0.004103
i-g	0.011056
C'-t	0.008151
e-C'	0.004566
F'-e	0.004720
i-F'	0.015501

Relative partial dispersion	
C-t/F-C	0.8357
C-A'/F-C	0.3514
d-C/F-C	0.3057
e-C/F-C	0.5443
g-d/F-C	1.2332
g-F/F-C	0.5389
h-g/F-C	0.4453
i-g/F-C	1.1998
C'-t/F'-C'	0.8778
e-C'/F'-C'	0.4917
F'-e/F'-C'	0.5083
i-F'/F'-C'	1.6693

Deviation of relative partial disp.	
$\Delta PdC$	-0.0010
$\Delta PgF$	0.0043

Internal CC (80%/5%)	
334/263	

Color Code (80%/5%)	
345/265	

CCI	
B	0.00
G	0.19
R	0.17

Thermal properties	
CTE(-30,70) [1E-7/°C]	89
CTE(100,300) [1E-7/°C]	103
Tg [°C]	603
At [°C]	639
Ht condct. [W/m·K]	0.671
Sp. heat [kJ/kg·K]	0.570
Ht diffus. [1E-6 m2/sec]	0.335

Chemical properties [class]	
Acid res. (surface)	4
Alkaline detergent res.	4
Climate resistance	2
Water res. (powder)	1
Acid res. (powder)	5

Mechanical properties	
Knoop hardness	316 (3)
Abrasion hardness	398
Young's mod. [GPa]	70.0
Shear mod. [GPa]	27.2
Poisson's ratio	0.284
Stress optical coef. [1E-5 nm/cm/Pa]	1.40

Internal trans. (10mm)		
$\lambda$ [nm]	$\tau$	
280	0.15	
290	0.27	
300	0.40	
310	0.54	
320	0.67	
330	0.78	
340	0.86	
350	0.918	
360	0.953	
370	0.973	
380	0.984	
390	0.990	
400	0.992	
420	0.994	
440	0.995	
460	0.996	
480	0.997	
500	0.998	
550	0.999	
600	0.999	
650	0.998	
700	0.998	
800	0.999	
900	0.999	
1000	0.999	
1200	0.999	
1400	0.995	
1600	0.988	
1800	0.965	
2000	0.936	
2200	0.85	
2400	0.79	

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.)	-2.8	-2.8	-2.7	-2.6	-2.5	-2.5	-2.4	-2.4	-2.3	-2.2	-2.0	-2.0	-1.7	-1.4	-1.3	
60 to 80 (ref.)	-2.9	-2.9	-2.7	-2.7	-2.6	-2.5	-2.5	-2.5	-2.4	-2.3	-2.1	-2.0	-1.8	-1.5	-1.4	
40 to 60	-2.9	-2.9	-2.8	-2.8	-2.7	-2.6	-2.6	-2.6	-2.5	-2.4	-2.2	-2.1	-1.9	-1.7	-1.5	
20 to 40	-3.0	-3.0	-2.9	-2.8	-2.7	-2.7	-2.6	-2.6	-2.5	-2.4	-2.2	-2.2	-2.0	-1.8	-1.6	
0 to 20	-3.0	-3.0	-2.9	-2.8	-2.7	-2.7	-2.7	-2.6	-2.6	-2.5	-2.3	-2.3	-2.0	-1.8	-1.7	
-20 to 0	-2.9	-2.9	-2.8	-2.8	-2.7	-2.6	-2.6	-2.6	-2.5	-2.4	-2.3	-2.2	-2.0	-1.8	-1.7	
-40 to -20	-2.8	-2.8	-2.7	-2.7	-2.6	-2.6	-2.5	-2.5	-2.4	-2.4	-2.2	-2.2	-2.0	-1.8	-1.7	
-60 to -40 (ref.)	-2.6	-2.6	-2.5	-2.5	-2.4	-2.4	-2.3	-2.3	-2.3	-2.2	-2.0	-2.0	-1.8	-1.6	-1.5	
-70 to -60 (ref.)	-2.4	-2.4	-2.3	-2.3	-2.2	-2.1	-2.1	-2.1	-2.0	-2.0	-1.8	-1.8	-1.6	-1.4	-1.3	

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	-3.8	-3.8	-3.7	-3.6	-3.5	-3.5	-3.4	-3.4	-3.3	-3.2	-3.0	-3.0	-2.7	-2.5	-2.3	
60 to 80	-3.9	-3.9	-3.8	-3.8	-3.7	-3.6	-3.6	-3.6	-3.5	-3.4	-3.2	-3.2	-2.9	-2.7	-2.5	
40 to 60	-4.2	-4.1	-4.0	-4.0	-3.9	-3.8	-3.8	-3.8	-3.7	-3.6	-3.4	-3.4	-3.2	-2.9	-2.8	
20 to 40	-4.4	-4.3	-4.2	-4.2	-4.1	-4.1	-4.0	-4.0	-3.9	-3.9	-3.7	-3.6	-3.4	-3.2	-3.1	
0 to 20	-4.6	-4.5	-4.5	-4.4	-4.3	-4.3	-4.3	-4.2	-4.2	-4.1	-3.9	-3.9	-3.7	-3.5	-3.4	
-20 to 0	-4.8	-4.7	-4.7	-4.6	-4.6	-4.5	-4.5	-4.5	-4.4	-4.3	-4.1	-4.1	-3.9	-3.8	-3.6	
-40 to -20	-5.0	-4.9	-4.9	-4.8	-4.8	-4.7	-4.7	-4.7	-4.6	-4.5	-4.4	-4.4	-4.2	-4.0	-3.9	
-60 to -40	-5.2	-5.1	-5.1	-5.0	-5.0	-4.9	-4.9	-4.9	-4.8	-4.8	-4.6	-4.6	-4.5	-4.3	-4.2	
-70 to -60	-5.3	-5.3	-5.2	-5.2	-5.1	-5.1	-5.1	-5.1	-5.0	-5.0	-4.8	-4.8	-4.6	-4.5	-4.4	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.14862526E-01
Q1	8.23972872E+01
P2	6.20276986E-02
Q2	1.47458503E-02
P3	2.76130278E-01
Q3	3.76713473E-03

Fitting error of disp. form. $\sigma$ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.4	2.8
Frac. eq. (ref.)	0.5	2.6

Prod. Freq. (A to D)	A
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Similar glass type			
OHARA	S-PHM53	HOYA	-
CDGM	H-ZPK2A	SCHOTT	-

2019-6-15	Transmittance
2019-4-1	Transmittance
2018-4-1	Similar glass type