

FCD100

437-951

$n_d = 1.43700$ $\nu_d = 95.10$ $n_F - n_C = 0.004595$
 $n_e = 1.43810$ $\nu_e = 94.66$ $n_{F'} - n_{C'} = 0.004628$

屈折率 Refractive Index		
	λ (nm)	
n_t	1013.98	1.43172
n_s	852.11	1.43306
$n_{A'}$	768.19	1.43396
n_r	706.52	1.43478
n_c	656.27	1.43559
$n_{c'}$	643.85	1.43582
n_{633}	632.80	1.43603
n_D	589.29	1.43696
n_d	587.56	1.43700
n_e	546.07	1.43810
n_F	486.13	1.44019
$n_{F'}$	479.99	1.44044
n_g	435.84	1.44264
n_h	404.66	1.44465
n_i	365.01	1.44803

化学的性質 Chemical Properties	
D_W	1
D_A	3
T_{Blue}	+
D_{NaOH}	5
D_{STPP}	5
D_o	5
D_H	

内部透過率 Internal Transmittance		
λ (nm)	τ 5mm	τ 10mm
1550	0.999	0.997
1500	0.999	0.997
1400	0.999	0.998
1300	0.999	0.997
1200	0.998	0.996
1100	0.997	0.995
1060	0.997	0.994
1050	0.997	0.995
1000	0.997	0.995
950	0.998	0.995
900	0.998	0.996
850	0.998	0.997
830	0.998	0.997
800	0.999	0.999
780	0.999	0.999
750	0.999	0.999
700	0.999	0.999
650	0.999	0.999
600	0.999	0.999
550	0.999	0.999
500	0.999	0.999
480	0.999	0.999
460	0.999	0.998
440	0.999	0.998
420	0.999	0.997
400	0.999	0.997
390	0.999	0.998
380	0.998	0.995
370	0.995	0.989
360	0.988	0.976
350	0.972	0.944
340	0.938	0.880
330	0.873	0.761
320	0.761	0.579
310	0.599	0.358
300	0.410	0.168
290	0.239	0.057
280	0.121	0.015

分散式の定数 Constants of dispersion formula	
A_0	2.0482157
A_1	$-4.3211222 \times 10^{-3}$
A_2	6.1826755×10^{-3}
A_3	3.1411480×10^{-5}
A_4	3.5370793×10^{-6}
A_5	$-1.6694497 \times 10^{-7}$

熱的性質 Thermal Properties	
T_g (°C)	404
T_s (°C)	444
$T_{10^{14.5}}$ (°C)	
$T_{10^{13}}$ (°C)	
$T_{10^{7.6}}$ (°C)	
$\alpha_{-30/+70^\circ\text{C}}$ ($10^{-7}/\text{K}$)	149
$\alpha_{100/300^\circ\text{C}}$ ($10^{-7}/\text{K}$)	175
λ [W/(m·K)]	0.867
C_p [kJ/(kg·K)]	0.696

部分分散 Partial dispersions	
$n_c - n_t$	0.003872
$n_d - n_c$	0.001410
$n_F - n_d$	0.003185
$n_g - n_F$	0.002451
$n_{c'} - n_t$	0.004097
$n_e - n_{c'}$	0.002283
$n_{F'} - n_e$	0.002345
$n_g - n_{F'}$	0.002193

機械的性質 Mechanical Properties	
H_K	310 (3)
F_A	400
E (GPa)	72
G (GPa)	27.5
μ	0.302
σ_b (MPa)	48

部分分散比 Partial dispersion rates			
$P_{c,t}$	0.8427	$P'_{c',t}$	0.8853
$P_{d,c}$	0.3069	$P'_{d,c'}$	0.2561
$P_{e,d}$	0.2390	$P'_{e,d}$	0.2373
$P_{F,e}$	0.4542	$P'_{F',e}$	0.5067
$P_{g,F}$	0.5334	$P'_{g,F'}$	0.4739
$P_{h,g}$	0.4379	$P'_{h,g}$	0.4347
$P_{i,h}$	0.7351	$P'_{i,h}$	0.7299

屈折率の温度係数 Thermal coefficient of refractive indices ($\times 10^{-6}/\text{K}$)		
(°C)	dn/dT (rel.)	dn/dT (abs.)
-40/-20	-5.2	-7.1
-20/0	-5.8	-7.4
0/+20	-6.3	-7.7
+20/+40	-6.7	-7.9
+40/+60	-7.0	-8.1
+60/+80	-7.3	-8.3

光弾性定数 Photoelastic Constant	
B ($10^{-12}/\text{Pa}$)	0.58

比重 Specific Gravity	
d	3.53

着色度 Coloration Code	
$\lambda 80 (\lambda 70) / \lambda 5$	335/290
着色度 (内部透過率) Coloration of Internal Transmittance	
$\lambda \tau 80 / \lambda \tau 5$	333/289

異常分散性 Anomalous dispersions	
$\Delta P_{c,t}$	-0.1475
$\Delta P_{c,A'}$	-0.0380
$\Delta P_{e,d}$	0.0716
$\Delta P_{g,F}$	0.0564
$\Delta P_{i,g}$	0.2734

備考 Remarks					
硝種対照表 Glass Cross Reference Index					
	HOYA	SCHOTT	OHARA	HIKARI	CDGM
Glass Type	FCD100		S-FPL53		
Code	437-951		439-950		
作成 201104					