

FDS90

847-238

$n_d = 1.84666$ $\nu_d = 23.78$ $n_F - n_C = 0.035597$
 $n_e = 1.85505$ $\nu_e = 23.60$ $n_{F'} - n_{C'} = 0.036234$

屈折率 Refractive Index		
	λ (nm)	
n_t	1013.98	1.81300
n_s	852.11	1.82028
$n_{A'}$	768.19	1.82572
n_r	706.52	1.83100
n_c	656.27	1.83649
$n_{c'}$	643.85	1.83807
n_{633}	632.80	1.83956
n_D	589.29	1.84636
n_d	587.56	1.84666
n_e	546.07	1.85505
n_F	486.13	1.87209
$n_{F'}$	479.99	1.87430
n_g	435.84	1.89413
n_h	404.66	1.91423
n_i	365.01	

化学的性質 Chemical Properties	
D_W	2
D_A	1
T_{Blue}	1
D_{NaOH}	1
D_{STPP}	1
D_0	1
D_H	

内部透過率 Internal Transmittance		
λ (nm)	τ 5mm	τ 10mm
1550	0.997	0.993
1500	0.997	0.994
1400	0.998	0.996
1300	0.999	0.999
1200	0.999	0.999
1100	0.999	0.999
1060	0.999	0.999
1050	0.999	0.999
1000	0.999	0.999
950	0.999	0.998
900	0.999	0.998
850	0.999	0.998
830	0.999	0.997
800	0.998	0.997
780	0.999	0.997
750	0.998	0.995
700	0.996	0.992
650	0.994	0.988
600	0.995	0.991
550	0.995	0.990
500	0.989	0.977
480	0.984	0.968
460	0.977	0.954
440	0.968	0.937
420	0.946	0.895
400	0.887	0.786
390	0.808	0.653
380	0.627	0.393
370	0.298	0.089
360		
350		
340		
330		
320		
310		
300		
290		
280		

分散式の定数 Constants of dispersion formula	
A_0	3.2606321
A_1	$-1.7780398 \times 10^{-2}$
A_2	4.0902938×10^{-2}
A_3	5.6076934×10^{-3}
A_4	$-5.6434039 \times 10^{-4}$
A_5	5.4763391×10^{-5}

熱的性質 Thermal Properties	
T_g (°C)	612
T_s (°C)	653
$T_{10^{14.5}}$ (°C)	588
$T_{10^{13}}$ (°C)	604
$T_{10^{7.6}}$ (°C)	697
$\alpha_{-30/+70}$ ($10^{-7}/K$)	90
$\alpha_{100/300}$ ($10^{-7}/K$)	107
λ [W/(m·K)]	1.000
C_p [kJ/(kg·K)]	0.610

部分分散 Partial dispersions	
$n_c - n_t$	0.023493
$n_d - n_c$	0.010171
$n_F - n_d$	0.025426
$n_g - n_F$	0.022038
$n_{c'} - n_t$	0.025069
$n_e - n_{c'}$	0.016981
$n_{F'} - n_e$	0.019253
$n_g - n_{F'}$	0.019825

機械的性質 Mechanical Properties	
H_K	550 (6)
F_A	160
E (GPa)	101
G (GPa)	40.7
μ	0.244
σ_b (MPa)	

部分分散比 Partial dispersion rates			
$P_{c,t}$	0.6600	$P'_{c',t}$	0.6919
$P_{d,c}$	0.2857	$P'_{d,c'}$	0.2372
$P_{e,d}$	0.2356	$P'_{e,d}$	0.2314
$P_{F,e}$	0.4787	$P'_{F',e}$	0.5314
$P_{g,F}$	0.6191	$P'_{g,F'}$	0.5471
$P_{h,g}$	0.5648	$P'_{h,g}$	0.5548
$P_{i,h}$		$P'_{i,h}$	

屈折率の温度係数 Thermal coefficient of refractive indices ($\times 10^{-6}/K$)		
(°C)	dn/dT (rel.)	dn/dT (abs.)
-40/-20	0.3	-2.2
-20/ 0	0.4	-1.8
0/+20	0.5	-1.4
+20/+40	0.6	-1.0
+40/+60	0.8	-0.6
+60/+80	1.0	-0.3

光弾性定数 Photoelastic Constant	
B ($10^{-12}/Pa$)	2.73

比重 Specific Gravity	
d	3.50

着色度 Coloration Code	
$\lambda 80 (\lambda 70) / \lambda 5$	(410) / 370
着色度 (内部透過率) Coloration of Internal Transmittance	
$\lambda \tau 80 / \lambda \tau 5$	402 / 368

異常分散性 Anomalous dispersions	
$\Delta P_{c,t}$	0.0029
$\Delta P_{c,A'}$	-0.0032
$\Delta P_{e,d}$	0.0158
$\Delta P_{g,F}$	0.0137
$\Delta P_{i,g}$	

備考 Remarks					
硝種対照表 Glass Cross Reference Index					
	HOYA	SCHOTT	OHARA	HIKARI	CDGM
Glass Type	FDS90	N-SF57	S-TIH53	E-SF03	H-ZF52A
Code	847-238	847-238	847-238	847-238	847-238
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