

# FD110

# 785-257

$n_d = 1.78472$   $\nu_d = 25.72$   $n_F - n_C = 0.030510$   
 $n_e = 1.79191$   $\nu_e = 25.51$   $n_{F'} - n_{C'} = 0.031041$

屈折率 Refractive Index		
	$\lambda$ (nm)	
$n_t$	1013.98	1.75554
$n_s$	852.11	1.76190
$n_{A'}$	768.19	1.76665
$n_r$	706.52	1.77122
$n_c$	656.27	1.77597
$n_{c'}$	643.85	1.77733
$n_{633}$	632.80	1.77861
$n_D$	589.29	1.78446
$n_d$	587.56	1.78472
$n_e$	546.07	1.79191
$n_F$	486.13	1.80648
$n_{F'}$	479.99	1.80837
$n_g$	435.84	1.82527
$n_h$	404.66	1.84225
$n_i$	365.01	

分散式の定数 Constants of dispersion formula	
$A_0$	3.0534415
$A_1$	$-1.2751810 \times 10^{-2}$
$A_2$	$4.0609369 \times 10^{-2}$
$A_3$	$2.2706109 \times 10^{-3}$
$A_4$	$-7.8086606 \times 10^{-5}$
$A_5$	$1.9874026 \times 10^{-5}$

部分分散 Partial dispersions	
$n_c - n_t$	0.020432
$n_d - n_c$	0.008747
$n_F - n_d$	0.021763
$n_g - n_F$	0.018785
$n_{c'} - n_t$	0.021791
$n_e - n_{c'}$	0.014575
$n_{F'} - n_e$	0.016466
$n_g - n_{F'}$	0.016895

部分分散比 Partial dispersion rates			
$P_{c,t}$	0.6697	$P'_{c,t}$	0.7020
$P_{d,c}$	0.2867	$P'_{d,c}$	0.2380
$P_{e,d}$	0.2356	$P'_{e,d}$	0.2315
$P_{F,e}$	0.4777	$P'_{F,e}$	0.5305
$P_{g,F}$	0.6157	$P'_{g,F}$	0.5443
$P_{h,g}$	0.5566	$P'_{h,g}$	0.5471
$P_{i,h}$		$P'_{i,h}$	

異常分散性 Anomalous dispersions	
$\Delta P_{c,t}$	0.0036
$\Delta P_{c,A'}$	-0.0024
$\Delta P_{g,d}$	0.0158
$\Delta P_{g,F}$	0.0138
$\Delta P_{i,g}$	

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

熱的性質 Thermal Properties	
$T_g$ (°C)	591
$T_s$ (°C)	642
$T_{10^{14.5}}$ (°C)	666
$T_{10^{13}}$ (°C)	582
$T_{10^{7.6}}$ (°C)	677
$\alpha_{-30/+70}$ ( $10^{-7}/K$ )	91
$\alpha_{100/300}$ ( $10^{-7}/K$ )	108
$\lambda$ [W/(m·K)]	1.060
$C_p$ [kJ/(kg·K)]	0.694

機械的性質 Mechanical Properties	
$H_K$	545 (5)
$F_A$	190
$E$ (GPa)	91
$G$ (GPa)	36.0
$\mu$	0.265
$\sigma_b$ (MPa)	

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	0.5	-1.9
-20/ 0	0.6	-1.5
0/+20	0.7	-1.1
+20/+40	0.8	-0.8
+40/+60	0.9	-0.5
+60/+80	1.0	-0.2

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

比重 Specific Gravity	
$d$	3.22

備考 Remarks						
硝種対照表 Glass Cross Reference Index						
	HOYA	SCHOTT	OHARA	HIKARI	CDGM	
Glass Type	FD110	N-SF11	S-TIH11	E-SF11	H-ZF13	
Code	785-257	785-257	785-257	785-257	785-257	
作成 201104						

内部透過率 Internal Transmittance		
$\lambda$ (nm)	$\tau$ 5mm	$\tau$ 10mm
1550	0.997	0.994
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	0.998
1050	0.999	0.998
1000	0.999	0.998
950	0.999	0.998
900	0.999	0.999
850	0.999	0.999
830	0.999	0.999
800	0.999	0.997
780	0.998	0.997
750	0.998	0.995
700	0.996	0.991
650	0.995	0.990
600	0.996	0.992
550	0.996	0.993
500	0.991	0.983
480	0.987	0.975
460	0.982	0.964
440	0.973	0.946
420	0.955	0.912
400	0.900	0.810
390	0.829	0.687
380	0.674	0.454
370	0.363	0.132
360		
350		
340		
330		
320		
310		
300		
290		
280		
着色度 Coloration Code		
$\lambda 80 (\lambda 70) / \lambda 5$	440/365	
着色度 (内部透過率) Coloration of Internal Transmittance		
$\lambda \tau 80 / \lambda \tau 5$	399/366	