

# NBFD12

# 800-423

$n_d = 1.79950$   $\nu_d = 42.34$   $n_F - n_C = 0.018883$   
 $n_e = 1.80399$   $\nu_e = 42.09$   $n_{F'} - n_{C'} = 0.019101$

屈折率 Refractive Index		
	$\lambda$ (nm)	
$n_t$	1013.98	1.77969
$n_s$	852.11	1.78433
$n_{A'}$	768.19	1.78763
$n_r$	706.52	1.79073
$n_c$	656.27	1.79388
$n_{c'}$	643.85	1.79476
$n_{633}$	632.80	1.79559
$n_D$	589.29	1.79934
$n_d$	587.56	1.79950
$n_e$	546.07	1.80399
$n_F$	486.13	1.81276
$n_{F'}$	479.99	1.81386
$n_g$	435.84	1.82342
$n_h$	404.66	1.83248
$n_i$	365.01	1.84838

分散式の定数 Constants of dispersion formula	
$A_0$	3.1513655
$A_1$	$-1.3052015 \times 10^{-2}$
$A_2$	$2.9502111 \times 10^{-2}$
$A_3$	$6.7643437 \times 10^{-4}$
$A_4$	$3.6679701 \times 10^{-6}$
$A_5$	$1.8233293 \times 10^{-6}$

部分分散 Partial dispersions	
$n_c - n_t$	0.014189
$n_d - n_c$	0.005627
$n_F - n_d$	0.013256
$n_g - n_F$	0.010666
$n_{c'} - n_t$	0.015076
$n_e - n_{c'}$	0.009229
$n_{F'} - n_e$	0.009872
$n_g - n_{F'}$	0.009561

部分分散比 Partial dispersion rates			
$P_{c,t}$	0.7514	$P'_{c,t}$	0.7893
$P_{d,c}$	0.2980	$P'_{d,c}$	0.2482
$P_{e,d}$	0.2377	$P'_{e,d}$	0.2350
$P_{F,e}$	0.4643	$P'_{F,e}$	0.5168
$P_{g,F}$	0.5648	$P'_{g,F}$	0.5005
$P_{h,g}$	0.4797	$P'_{h,g}$	0.4742
$P_{i,h}$	0.8419	$P'_{i,h}$	0.8323

異常分散性 Anomalous dispersions	
$\Delta P_{c,t}$	0.0077
$\Delta P_{c,A'}$	0.0023
$\Delta P_{g,d}$	-0.0084
$\Delta P_{g,F}$	-0.0072
$\Delta P_{i,g}$	-0.0450

化学的性質 Chemical Properties	
$D_W$	1
$D_A$	4
$T_{Blue}$	3
$D_{NaOH}$	1
$D_{STPP}$	2
$D_0$	2
$D_H$	

熱的性質 Thermal Properties	
$T_g$ (°C)	586
$T_s$ (°C)	624
$T_{10^{14.5}}$ (°C)	565
$T_{10^{13}}$ (°C)	581
$T_{10^{7.6}}$ (°C)	662
$\alpha_{-30/+70}$ ( $10^{-7}/K$ )	57
$\alpha_{100/300}$ ( $10^{-7}/K$ )	70
$\lambda$ [W/(m·K)]	0.821
$C_p$ [kJ/(kg·K)]	0.504

機械的性質 Mechanical Properties	
$H_K$	670 (7)
$F_A$	70
$E$ (GPa)	110
$G$ (GPa)	42.1
$\mu$	0.305
$\sigma_b$ (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	7.9	5.5
-20/ 0	8.0	5.9
0/+20	8.0	6.3
+20/+40	8.1	6.6
+40/+60	8.2	6.8
+60/+80	8.3	7.0

光弾性定数 Photoelastic Constant	
$B$ ( $10^{-12}/Pa$ )	2.28

比重 Specific Gravity	
$d$	4.45

備考 Remarks					
硝種対照表 Glass Cross Reference Index					
	HOYA	SCHOTT	OHARA	HIKARI	CDGM
Glass Type	NBFD12	N-LAF36	S-LAH52		
Code	800-423	800-424	800-422		
作成 201104					

内部透過率 Internal Transmittance		
$\lambda$ (nm)	$\tau$ 5mm	$\tau$ 10mm
1550	0.999	0.996
1500	0.999	0.996
1400	0.999	0.997
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	0.999
900	0.999	0.999
850	0.999	0.999
830	0.999	0.999
800	0.999	0.999
780	0.999	0.999
750	0.999	0.999
700	0.999	0.997
650	0.999	0.997
600	0.999	0.997
550	0.998	0.996
500	0.997	0.994
480	0.996	0.992
460	0.995	0.989
440	0.993	0.986
420	0.991	0.982
400	0.987	0.974
390	0.981	0.962
380	0.972	0.945
370	0.954	0.911
360	0.920	0.847
350	0.841	0.708
340	0.685	0.469
330	0.398	0.158
320	0.106	0.011
310		
300		
290		
280		
着色度 Coloration Code		
$\lambda 80 (\lambda 70) / \lambda 5$	390/330	
着色度 (内部透過率) Coloration of Internal Transmittance		
$\lambda \tau 80 / \lambda \tau 5$		