

# MP-NBF1

# 743-493

$n_d = 1.74330$   $\nu_d = 49.33$   $n_F - n_C = 0.015069$   
 $n_e = 1.74689$   $\nu_e = 49.07$   $n_{F'} - n_{C'} = 0.015221$

屈折率 Refractive Index		
	$\lambda$ (nm)	
$n_t$	1013.98	1.72693
$n_s$	852.11	1.73091
$n_{A'}$	768.19	1.73367
$n_r$	706.52	1.73621
$n_c$	656.27	1.73876
$n_{c'}$	643.85	1.73948
$n_{633}$	632.80	1.74015
$n_D$	589.29	1.74317
$n_d$	587.56	1.74330
$n_e$	546.07	1.74689
$n_F$	486.13	1.75383
$n_{F'}$	479.99	1.75470
$n_g$	435.84	1.76216
$n_h$	404.66	1.76913
$n_i$	365.01	1.78115

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

内部透過率 Internal Transmittance		
$\lambda$ (nm)	$\tau$ 5mm	$\tau$ 10mm
1550	0.997	0.995
1500	0.997	0.994
1400	0.995	0.989
1300	0.998	0.995
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	0.999
650	0.999	0.999
600	0.999	0.999
550	0.999	0.999
500	0.999	0.999
480	0.999	0.998
460	0.998	0.996
440	0.997	0.993
420	0.995	0.989
400	0.991	0.983
390	0.988	0.976
380	0.981	0.963
370	0.970	0.941
360	0.950	0.902
350	0.918	0.842
340	0.871	0.758
330	0.807	0.651
320	0.712	0.507
310	0.593	0.351
300	0.503	0.253
290	0.382	0.146
280	0.219	0.048

分散式の定数 Constants of dispersion formula	
$A_0$	2.9752450
$A_1$	$-1.4250160 \times 10^{-2}$
$A_2$	$2.1400740 \times 10^{-2}$
$A_3$	$9.7553370 \times 10^{-4}$
$A_4$	$-6.9795300 \times 10^{-5}$
$A_5$	$4.1149240 \times 10^{-6}$

熱的性質 Thermal Properties	
$T_g$ (°C)	560
$T_s$ (°C)	600
$T_{10^{14.5}}$ (°C)	535
$T_{10^{13}}$ (°C)	552
$T_{10^{7.6}}$ (°C)	640
$\alpha_{-30/+70^\circ\text{C}}$ ( $10^{-7}/\text{K}$ )	57
$\alpha_{100/300^\circ\text{C}}$ ( $10^{-7}/\text{K}$ )	73
$\lambda$ [W/(m·K)]	0.891
$C_p$ [kJ/(kg·K)]	0.565

部分分散 Partial dispersions	
$n_c - n_t$	0.011839
$n_d - n_c$	0.004535
$n_F - n_d$	0.010534
$n_g - n_F$	0.008328
$n_{c'} - n_t$	0.012557
$n_e - n_{c'}$	0.007407
$n_{F'} - n_e$	0.007814
$n_g - n_{F'}$	0.007458

機械的性質 Mechanical Properties	
$H_K$	665 (7)
$F_A$	70
$E$ (GPa)	111
$G$ (GPa)	42.3
$\mu$	0.307
$\sigma_b$ (MPa)	109

部分分散比 Partial dispersion rates			
$P_{c,t}$	0.7857	$P'_{c',t}$	0.8250
$P_{d,c}$	0.3009	$P'_{d,c'}$	0.2508
$P_{e,d}$	0.2382	$P'_{e,d}$	0.2359
$P_{F,e}$	0.4608	$P'_{F',e}$	0.5134
$P_{g,F}$	0.5527	$P'_{g,F'}$	0.4900
$P_{h,g}$	0.4623	$P'_{h,g}$	0.4577
$P_{i,h}$	0.7975	$P'_{i,h}$	0.7896

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	7.8	5.4
-20/ 0	7.8	5.8
0/+20	8.0	6.2
+20/+40	8.1	6.6
+40/+60	8.3	6.9
+60/+80	8.4	7.2

異常分散性 Anomalous dispersions	
$\Delta P_{c,t}$	0.0093
$\Delta P_{c,A'}$	0.0017
$\Delta P_{g,d}$	-0.0076
$\Delta P_{g,F}$	-0.0068
$\Delta P_{i,g}$	-0.0449

冷却速度による屈折率の変化 Difference of refractive indices by cooling rate	
$\beta_c$	135
$\beta_d$	135
$\beta_F$	135
$\beta_g$	135

光弾性定数 Photoelastic Constant	
$B$ ( $10^{-12}/\text{Pa}$ )	2.26

比重 Specific Gravity	
$d$	4.25

着色度 Coloration Code	
$\lambda 80 (\lambda 70) / \lambda 5$	370/280

着色度 (内部透過率) Coloration of Internal Transmittance	
$\lambda \tau 80 / \lambda \tau 5$	345/280

備考 Remarks	
作成 201104	