

# BAFD7

# 702-412

$n_d = 1.70154$   $\nu_d = 41.15$   $n_F - n_C = 0.017049$   
 $n_e = 1.70559$   $\nu_e = 40.86$   $n_{F'} - n_{C'} = 0.017270$

屈折率 Refractive Index		
	$\lambda$ (nm)	
$n_t$	1013.98	1.68408
$n_s$	852.11	1.68809
$n_{A'}$	768.19	1.69098
$n_r$	706.52	1.69372
$n_c$	656.27	1.69651
$n_{c'}$	643.85	1.69730
$n_{633}$	632.80	1.69804
$n_D$	589.29	1.70139
$n_d$	587.56	1.70154
$n_e$	546.07	1.70559
$n_F$	486.13	1.71356
$n_{F'}$	479.99	1.71457
$n_g$	435.84	1.72339
$n_h$	404.66	1.73189
$n_i$	365.01	1.74719

分散式の定数 Constants of dispersion formula	
$A_0$	2.8217211
$A_1$	$-9.7265483 \times 10^{-3}$
$A_2$	$2.4345979 \times 10^{-2}$
$A_3$	$7.8406305 \times 10^{-4}$
$A_4$	$-2.2431497 \times 10^{-5}$
$A_5$	$4.6726029 \times 10^{-6}$

部分分散 Partial dispersions	
$n_c - n_t$	0.012429
$n_d - n_c$	0.005034
$n_F - n_d$	0.012015
$n_g - n_F$	0.009836
$n_{c'} - n_t$	0.013220
$n_e - n_{c'}$	0.008288
$n_{F'} - n_e$	0.008982
$n_g - n_{F'}$	0.008824

部分分散比 Partial dispersion rates			
$P_{c,t}$	0.7290	$P'_{c,t}$	0.7655
$P_{d,c}$	0.2953	$P'_{d,c}$	0.2457
$P_{e,d}$	0.2373	$P'_{e,d}$	0.2342
$P_{F,e}$	0.4675	$P'_{F,e}$	0.5201
$P_{g,F}$	0.5769	$P'_{g,F}$	0.5109
$P_{h,g}$	0.4983	$P'_{h,g}$	0.4919
$P_{i,h}$	0.8975	$P'_{i,h}$	0.8860

異常分散性 Anomalous dispersions	
$\Delta P_{c,t}$	-0.0092
$\Delta P_{c,A'}$	-0.0026
$\Delta P_{g,d}$	0.0037
$\Delta P_{g,F}$	0.0028
$\Delta P_{i,g}$	0.0187

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)	582
$T_s$ (°C)	646
$T_{10^{14.5}}$ (°C)	558
$T_{10^{13}}$ (°C)	575
$T_{10^{7.6}}$ (°C)	707
$\alpha_{-30/+70}$ ( $10^{-7}/K$ )	68
$\alpha_{100/300}$ ( $10^{-7}/K$ )	84
$\lambda$ [W/(m·K)]	0.902
$C_p$ [kJ/(kg·K)]	0.556

機械的性質 Mechanical Properties	
$H_K$	595 (6)
$F_A$	140
$E$ (GPa)	97
$G$ (GPa)	38.0
$\mu$	0.276
$\sigma_b$ (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	4.6	2.3
-20/0	4.7	2.7
0/+20	4.8	3.1
+20/+40	5.0	3.4
+40/+60	5.0	3.7
+60/+80	5.1	4.0

光弾性定数 Photoelastic Constant	
$B$ ( $10^{-12}/Pa$ )	2.25

比重 Specific Gravity	
$d$	3.65

備考 Remarks					
硝種対照表 Glass Cross Reference Index					
	HOYA	SCHOTT	OHARA	HIKARI	CDGM
Glass Type	BAFD7	N-BASF52	S-BAH27	E-BASF7	H-ZBAF20
Code	702-412	702-410	702-412	702-412	702-412
作成 201104					

内部透過率 Internal Transmittance		
$\lambda$ (nm)	$\tau$ 5mm	$\tau$ 10mm
1550	0.999	0.997
1500	0.998	0.996
1400	0.999	0.998
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	0.997	0.995
650	0.999	0.998
600	0.999	0.998
550	0.999	0.999
500	0.997	0.993
480	0.995	0.990
460	0.991	0.982
440	0.988	0.975
420	0.981	0.962
400	0.961	0.924
390	0.939	0.882
380	0.894	0.799
370	0.797	0.636
360	0.593	0.351
350	0.253	0.064
340		
330		
320		
310		
300		
290		
280		
着色度 Coloration Code		
$\lambda 80 (\lambda 70) / \lambda 5$	400/350	
着色度 (内部透過率) Coloration of Internal Transmittance		
$\lambda \tau 80 / \lambda \tau 5$	380/349	