

E-FEL1

548-458

$n_d = 1.54814$ $\nu_d = 45.82$ $n_F - n_C = 0.011963$
 $n_e = 1.55098$ $\nu_e = 45.52$ $n_{F'} - n_{C'} = 0.012104$

屈折率 Refractive Index		
	λ (nm)	
n_t	1013.98	1.53535
n_s	852.11	1.53846
$n_{A'}$	768.19	1.54060
n_r	706.52	1.54258
n_c	656.27	1.54458
$n_{c'}$	643.85	1.54514
n_{633}	632.80	1.54567
n_D	589.29	1.54803
n_d	587.56	1.54814
n_e	546.07	1.55098
n_F	486.13	1.55654
$n_{F'}$	479.99	1.55724
n_g	435.84	1.56336
n_h	404.66	1.56922
n_i	365.01	1.57980

分散式の定数 Constants of dispersion formula	
A_0	2.3534484
A_1	$-1.0330438 \times 10^{-2}$
A_2	1.4097325×10^{-2}
A_3	8.7167875×10^{-4}
A_4	$-6.9981970 \times 10^{-5}$
A_5	5.7867359×10^{-6}

部分分散 Partial dispersions	
$n_c - n_t$	0.009227
$n_d - n_c$	0.003561
$n_F - n_d$	0.008402
$n_g - n_F$	0.006817
$n_{c'} - n_t$	0.009789
$n_e - n_{c'}$	0.005840
$n_{F'} - n_e$	0.006264
$n_g - n_{F'}$	0.006114

部分分散比 Partial dispersion rates			
$P_{c,t}$	0.7713	$P'_{c,t}$	0.8087
$P_{d,c}$	0.2977	$P'_{d,c}$	0.2478
$P_{e,d}$	0.2375	$P'_{e,d}$	0.2347
$P_{F,e}$	0.4648	$P'_{F,e}$	0.5175
$P_{g,F}$	0.5698	$P'_{g,F}$	0.5051
$P_{h,g}$	0.4903	$P'_{h,g}$	0.4846
$P_{i,h}$	0.8839	$P'_{i,h}$	0.8736

異常分散性 Anomalous dispersions	
$\Delta P_{c,t}$	0.0113
$\Delta P_{c,A'}$	0.0000
$\Delta P_{g,d}$	0.0048
$\Delta P_{g,F}$	0.0041
$\Delta P_{i,g}$	0.0385

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

熱的性質 Thermal Properties	
T_g (°C)	502
T_s (°C)	571
$T_{10^{14.5}}$ (°C)	483
$T_{10^{13}}$ (°C)	495
$T_{10^{7.6}}$ (°C)	659
$\alpha_{-30/+70}$ ($10^{-7}/K$)	79
$\alpha_{100/300}$ ($10^{-7}/K$)	96
λ [W/(m·K)]	1.060
C_p [kJ/(kg·K)]	0.728

機械的性質 Mechanical Properties	
H_K	535 (5)
F_A	130
E (GPa)	
G (GPa)	
μ	
σ_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	1.8	-0.3
-20/ 0	1.8	0.0
0/+20	1.8	0.3
+20/+40	1.9	0.6
+40/+60	2.0	0.8
+60/+80	2.0	1.0

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

比重 Specific Gravity	
d	2.54

内部透過率 Internal Transmittance		
λ (nm)	τ 5mm	τ 10mm
1550	0.998	0.996
1500	0.999	0.998
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	0.999	0.998
650	0.997	0.994
600	0.998	0.996
550	0.998	0.996
500	0.996	0.992
480	0.995	0.990
460	0.993	0.987
440	0.992	0.985
420	0.993	0.985
400	0.990	0.980
390	0.983	0.967
380	0.972	0.944
370	0.930	0.864
360	0.794	0.630
350	0.438	0.192
340		
330		
320		
310		
300		
290		
280		

着色度 Coloration Code	
$\lambda 80 (\lambda 70) / \lambda 5$	370/345

着色度 (内部透過率) Coloration of Internal Transmittance	
$\lambda \tau 80 / \lambda \tau 5$	366/345

備考 Remarks					
硝種対照表 Glass Cross Reference Index					
	HOYA	SCHOTT	OHARA	HIKARI	CDGM
Glass Type	E-FEL1		S-TIL1	E-LLF1	H-QF1
Code	548-458		548-458	548-458	548-458
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