ガラスレンズ用プレス品硝種　Glass Lens Pressed Blanks
ガラス研磨レンズ用硝種　Glass Polished Lens

NBFD11

786-439

$n_d = 1.78590$　$\nu_d = 43.93$　$n_F - n_C = 0.017888$
$n_e = 1.79015$　$\nu_e = 43.70$　$n_{F'} - n_{C'} = 0.018080$

屈折率 Refractive Index		
	λ (nm)	
n_t	1013.98	1.76688
n_s	852.11	1.77134
$n_{A'}$	768.19	1.77453
n_r	706.52	1.77752
n_C	656.27	1.78053
$n_{C'}$	643.85	1.78138
n_{633}	632.80	1.78218
n_D	589.29	1.78574
n_d	587.56	1.78590
n_e	546.07	1.79015
n_F	486.13	1.79842
$n_{F'}$	479.99	1.79946
n_g	435.84	1.80846
n_h	404.66	1.81696
n_i	365.01	1.83175

分散式の定数 Constants of dispersion formula	
A_0	3.1010267
A_1	$-1.0022108 \times 10^{-2}$
A_2	3.2631687×10^{-2}
A_3	$-8.1029268 \times 10^{-4}$
A_4	1.9350110×10^{-4}
A_5	$-8.0279799 \times 10^{-6}$

部分分散 Partial dispersions	
$n_C - n_t$	0.013653
$n_d - n_C$	0.005365
$n_F - n_d$	0.012523
$n_g - n_F$	0.010037
$n_{C'} - n_t$	0.014502
$n_e - n_{C'}$	0.008769
$n_{F'} - n_e$	0.009311
$n_g - n_{F'}$	0.008996

部分分散比 Partial dispersion rates			
P_{C_t}	0.7632	$P'_{C'\_t}$	0.8021
P_{d_C}	0.2999	$P'_{d\_C'}$	0.2498
P_{e_d}	0.2378	P'_{e_d}	0.2352
P_{F_e}	0.4623	$P'_{F'\_e}$	0.5150
P_{g_F}	0.5611	$P'_{g\_F'}$	0.4976
P_{h_g}	0.4754	P'_{h_g}	0.4704
P_{i_h}	0.8267	P'_{i_h}	0.8179

異常分散性 Anomalous dispersions	
ΔP_{C_t}	0.0121
$\Delta P_{C\_A'}$	0.0054
ΔP_{g_d}	-0.0105
ΔP_{g_F}	-0.0080
ΔP_{i_g}	-0.0503

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

熱的性質 Thermal Properties	
T_g (℃)	590
T_s (℃)	631
$T_{10^{14.5}}$ (℃)	569
$T_{10^{13}}$ (℃)	586
$T_{10^{7.6}}$ (℃)	668
$\alpha_{-30/+70℃}$ (10^{-7}/K)	57
$\alpha_{100/300℃}$ (10^{-7}/K)	71
λ [W/(m·K)]	0.768
C_P [kJ/(kg·K)]	0.480

機械的性質 Mechanical Properties	
H_K	690(7)
F_A	70
E (GPa)	110
G (GPa)	42.0
μ	0.310
σ_b (MPa)	

屈折率の温度係数 (×10^{-6}/K) Thermal coefficient of refractive indices		
(℃)	dn/dT (rel.)	dn/dT (abs.)
-40/-20	7.2	4.7
-20/ 0	7.6	5.5
0/+20	7.9	6.2
+20/+40	8.2	6.7
+40/+60	8.5	7.1
+60/+80	8.6	7.4

光弾性定数 Photoelastic Constant	
B (10^{-12}/Pa)	2.16

比重 Specific Gravity	
d	4.43

内部透過率 Internal Transmittance		
λ (nm)	τ 5mm	τ 10mm
1550	0.998	0.996
1500	0.997	0.994
1400	0.998	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	0.998
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	0.998	0.995
460	0.997	0.995
440	0.995	0.990
420	0.993	0.986
400	0.988	0.977
390	0.982	0.964
380	0.972	0.944
370	0.959	0.919
360	0.930	0.866
350	0.881	0.776
340	0.795	0.632
330	0.629	0.396
320	0.340	0.116
310		
300		
290		
280		

着色度 Coloration Code	
λ80(λ70)/λ5	380/315

着色度(内部透過率) Coloration of Internal Transmittance	
λτ80/λτ5	352/316

備考 Remarks

硝種対照表 Glass Cross Reference Index

	HOYA	SCHOTT	OHARA	HIKARI	CDGM
Glass Type	NBFD11	N-LAF33	S-LAH51	E-LASF01	H-LAF52
Code	786-439	786-441	786-442	786-442	786-442

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