Datasheet

N-BAF4
606437.289

n_d = 1.60568 ν_d = 43.72 $n_F - n_C$ = 0.013853
n_e = 1.60897 ν_e = 43.43 $n_{F'} - n_{C'}$ = 0.014021

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.57092
$n_{1970.1}$	1970.1	1.57685
$n_{1529.6}$	1529.6	1.58323
$n_{1060.0}$	1060.0	1.59016
n_t	1014.0	1.59099
n_s	852.1	1.59452
n_r	706.5	1.59926
n_C	656.3	1.60157
$n_{C'}$	643.8	1.60222
$n_{632.8}$	632.8	1.60282
n_D	589.3	1.60556
n_d	587.6	1.60568
n_e	546.1	1.60897
n_F	486.1	1.61542
$n_{F'}$	480.0	1.61624
n_g	435.8	1.62336
n_h	404.7	1.63022
n_i	365.0	
$n_{334.1}$	334.1	
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Constants of Dispersion Formula

B_1	1.420563280
B_2	0.102721269
B_3	1.143809760
C_1	0.009420154
C_2	0.0531087291
C_3	110.27885600

Constants of Formula for dn/dT

D_0	9.39E-07
D_1	1.24E-08
D_2	-9.00E-12
E_0	6.17E-07
E_1	8.42E-10
λ_{TK} [µm]	0.242

Internal Transmittance τ_i

λ [nm]	τ_i [10mm]	τ_i [25mm]
2500	0.710	0.420
2325	0.840	0.640
1970	0.954	0.890
1530	0.991	0.977
1060	0.998	0.994
700	0.998	0.994
660	0.996	0.991
620	0.996	0.990
580	0.997	0.992
546	0.997	0.992
500	0.994	0.985
460	0.988	0.971
436	0.983	0.959
420	0.976	0.940
405	0.959	0.900
400	0.950	0.870
390	0.900	0.770
380	0.800	0.580
370	0.600	0.280
365	0.440	0.130
350	0.010	
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ80 / λ5	39/35

Remarks

Relative Partial Dispersion P

$P_{s,t}$	0.2545
$P_{C,s}$	0.5089
$P_{d,C}$	0.2972
$P_{e,d}$	0.2372
$P_{g,F}$	0.5733
$P_{i,h}$	

Relative Partial Dispersion P'

$P'_{s,t}$	0.2515
$P'_{C',s}$	0.5491
$P'_{d,C'}$	0.2473
$P'_{e,d}$	0.2344
$P'_{g,F'}$	0.5081
$P'_{i,h}$	

Deviation of Rel. Partial Disp. ΔP from the normal line

$\Delta P_{C,t}$	0.0110
$\Delta P_{C,s}$	0.0041
$\Delta P_{F,e}$	0.0002
$\Delta P_{g,F}$	0.0030
$\Delta P_{i,g}$	

Chemical Properties

CR	1
FR	0
SR	1
AR	1.2
PR	1.3

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.2
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.3
T_g [°C]	580
$T_{10^{13}}$ [°C]	580
$T_{10^{7.6}}$ [°C]	709
c_p [J/(g*K)]	0.740
λ [W/(m•K)]	1.020
ρ [g/cm³]	2.89
E [10^3 N/mm²]	85
µ	0.231
K [10^{-6} mm²/N]	2.58
$HK_{0.1/20}$	610
HG	3

Temperature Coefficients of the Refractive Index

	$\Delta n_{rel}/\Delta T$ [10^{-6}/K]			$\Delta n_{abs}/\Delta T$ [10^{-6}/K]		
[°C]	1060.0	e	g	1060.0	e	g
-40/-20	2.2	3.1	4.1	0.1	0.9	1.9
+20/+40	2.2	3.3	4.5	0.9	1.9	3.0
+60/+80	2.4	3.6	4.9	1.3	2.5	3.8