Data Sheet

SCHOTT

N-BASF64
704394.320

$n_d = 1.70400$	$\nu_d = 39.38$	$n_F - n_C = 0.017875$
$n_e = 1.70824$	$\nu_e = 39.12$	$n_{F'} - n_{C'} = 0.018105$

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.66373
$n_{1970.1}$	1970.1	1.66988
$n_{1529.6}$	1529.6	1.67667
$n_{1060.0}$	1060.0	1.68453
n_t	1014.0	1.68551
n_s	852.1	1.68982
n_r	706.5	1.69578
n_C	656.3	1.69872
$n_{C'}$	643.8	1.69955
$n_{632.8}$	632.8	1.70033
n_D	589.3	1.70384
n_d	587.6	1.70400
n_e	546.1	1.70824
n_F	486.1	1.71659
$n_{F'}$	480.0	1.71765
n_g	435.8	1.72690
n_h	404.7	1.73581
n_i	365.0	1.75184
$n_{334.1}$	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	1.65554268
B_2	0.17131977
B_3	1.33664448
C_1	0.0104485644
C_2	0.0499394756
C_3	118.961472

Constants of Dispersion dn/dT

D_0	$1.60 \cdot 10^{-6}$
D_1	$1.02 \cdot 10^{-8}$
D_2	$-2.68 \cdot 10^{-11}$
E_0	$7.87 \cdot 10^{-7}$
E_1	$9.65 \cdot 10^{-10}$
λ_{TK} [µm]	0.229

Internal Transmittance τ_i

λ [nm]	τ_i (10mm)	τ_i (25mm)
2500	0.727	0.450
2325	0.852	0.670
1970	0.959	0.900
1530	0.988	0.970
1060	0.994	0.985
700	0.988	0.970
660	0.982	0.955
620	0.979	0.949
580	0.979	0.949
546	0.980	0.950
500	0.976	0.940
460	0.967	0.920
436	0.959	0.900
420	0.950	0.880
405	0.933	0.840
400	0.924	0.820
390	0.891	0.750
380	0.821	0.610
370	0.672	0.370
365	0.546	0.220
350	0.090	
334		
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	40/35
(*= λ_{70}/λ_5)	

Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2408
$P_{C,s}$	0.4979
$P_{d,C}$	0.2956
$P_{e,d}$	0.2372
$P_{g,F}$	0.5769
$P_{i,h}$	0.8970
$P'_{s,t}$	0.2377
$P'_{C',s}$	0.5375
$P'_{d,C'}$	0.2459
$P'_{e,d}$	0.2342
$P'_{g,F'}$	0.5110
$P'_{i,h}$	0.8856

Deviation of Relative Partial Dispersions ΔP from the "Normal Line"

$\Delta P_{C,t}$	0.0069
$\Delta P_{C,s}$	0.0032
$\Delta P_{F,e}$	-0.0004
$\Delta P_{g,F}$	-0.0006
$\Delta P_{i,g}$	0.0012

Other Properties

$\alpha_{-30/+70°C}$ [10^{-6}/K]	7.3
$\alpha_{+20/+300°C}$ [10^{-6}/K]	8.7
T_g [°C]	582
$T_{10}^{13.0}$ [°C]	585
$T_{10}^{7.6}$ [°C]	712
c_p [J/(g·K)]	
λ [W/(m·K)]	
ρ [g/cm^3]	3.20
E [10^3 N/mm^2]	105
μ	0.264
K [10^{-6} mm^2/N]	2.38
HK$_{0.1/20}$	650
HG	4
CR	1
FR	0
SR	3.2
AR	1.2
PR	1

Temperature Coefficients of 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	2.8	4.1	5.5	0.6	1.8	3.1
+20/ +40	2.8	4.3	5.9	1.4	2.8	4.4
+60/ +80	2.9	4.5	6.3	1.8	3.4	5.1