KNIGHT OPTICAL
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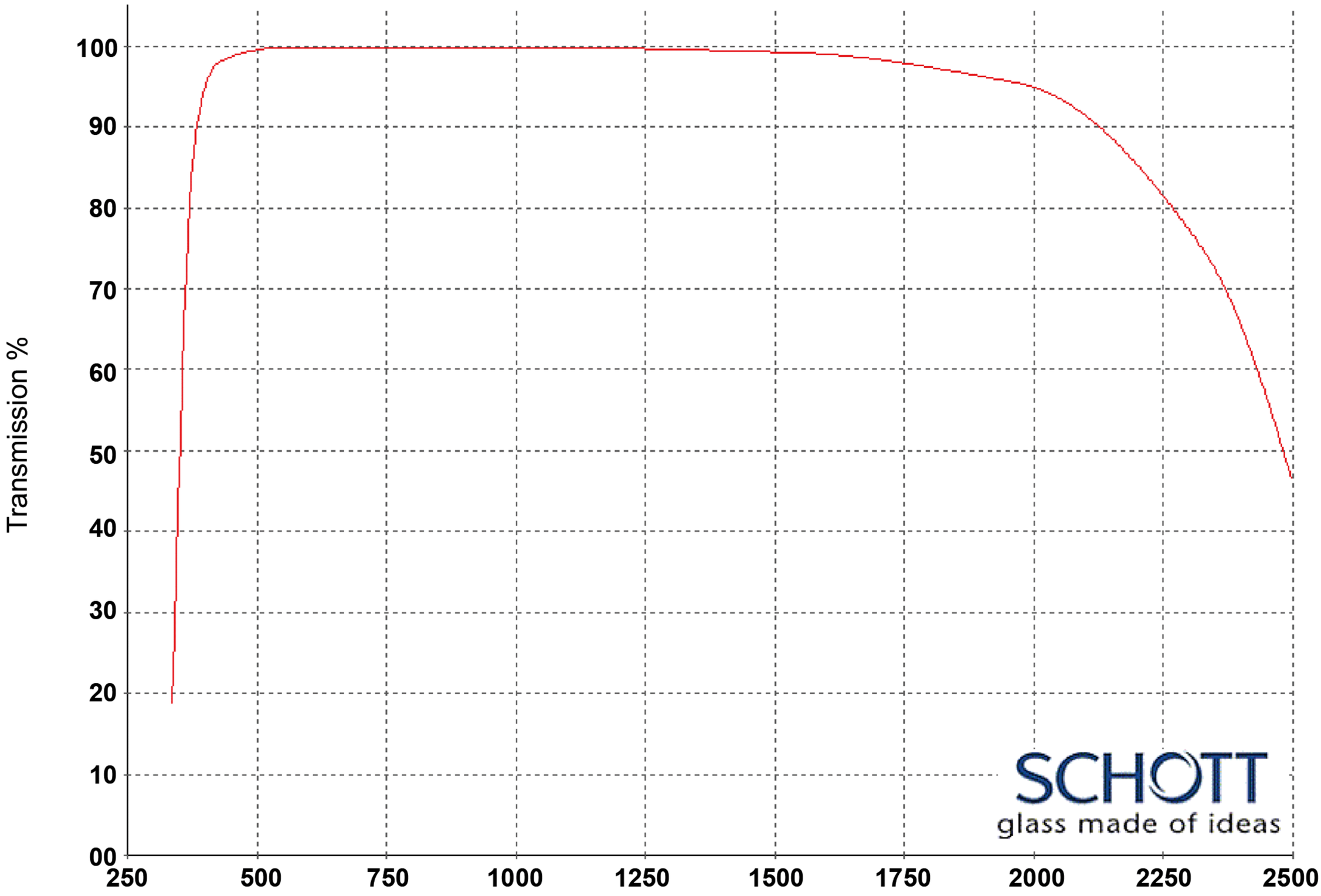
Title: Optical Glasses - 250-2500nm
Material: N-LAF21 for 250nm - 2500 transmission
Range: N-LAF21



Internal transmittance for 10mm thickness

WAVELENGTH	N-LAF21 (T%)
2500 nm	0.460
2325 nm	0.750
1970 nm	0.954
1530 nm	0.992
1060 nm	0.998
700 nm	0.998
660 nm	0.998
620 nm	0.998
580 nm	0.998
546 nm	0.998
500 nm	0.995
460 nm	0.989
436 nm	0.983
420 nm	0.976
405 nm	0.959
400 nm	0.950
390 nm	0.920
380 nm	0.880
370 nm	0.800
365 nm	0.750
350 nm	0.480
334 nm	0.130
320 nm	0.000
310 nm	0.000
300 nm	0.000
290 nm	0.000
280 nm	0.000
270 nm	0.000
260 nm	0.000
250 nm	0.000

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Whilst every effort has been made to verify this data, Knight Optical(UK)Ltd can take no responsibility for its accuracy.

SCHOTT
glass made of ideas

Refractive Indices		
	λ [nm]	
$n_{2325.4}$	2325.4	
$n_{1970.1}$	1970.1	
$n_{1529.6}$	1529.6	
$n_{1060.0}$	1060.0	1.76893
n_t	1014.0	1.76997
n_s	852.1	1.77435
n_r	706.5	1.78019
n_C	656.3	1.78301
$n_{C'}$	643.8	1.78380
$n_{632.8}$	632.8	1.78454
n_D	589.3	1.78785
n_d	587.6	1.78800
n_e	546.1	1.79195
n_F	486.1	1.79960
$n_{F'}$	480.0	1.80056
n_g	435.8	1.80883
n_h	404.7	1.81659
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	$1.88246178 \cdot 10^{+00}$
B_2	$2.39703394 \cdot 10^{-01}$
B_3	$1.23484815 \cdot 10^{+00}$
C_1	$9.36029744 \cdot 10^{-03}$
C_2	$3.54026371 \cdot 10^{-02}$
C_3	$8.43919934 \cdot 10^{+01}$

Constants of Formula dn/dT	
D_0	$2.94 \cdot 10^{-06}$
D_1	$1.01 \cdot 10^{-08}$
D_2	$-1.89 \cdot 10^{-11}$
E_0	$5.97 \cdot 10^{-07}$
E_1	$7.69 \cdot 10^{-10}$
λ_{TK}[µm]	0.193

Internal Transmittance τ_i		
λ [nm]	τ_i [10 mm]	τ_i [25 mm]
2500	0.46	0.14
2325	0.75	0.49
1970	0.954	0.89
1530	0.992	0.981
1060	0.998	0.995
700	0.998	0.996
660	0.998	0.996
620	0.998	0.995
580	0.998	0.994
546	0.998	0.994
500	0.995	0.988
460	0.989	0.973
436	0.983	0.958
420	0.976	0.940
405	0.959	0.900
400	0.950	0.88
390	0.920	0.82
380	0.88	0.73
370	0.80	0.58
365	0.75	0.48
350	0.48	0.16
334	0.13	
320		
310		
300		
290		
280		
270		
260		
250		

Color Code	
λ_{80}/λ_5	40/33

Remarks

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	3.7	4.8	5.8	1.4	2.3	3.3
+20/+40	3.8	4.9	6.1	2.2	3.4	4.5
+60/+80	3.9	5.2	6.4	2.7	3.9	5.2

Relative Partial Dispersion	
$P_{s.t}$	0.2642
$P_{C.s}$	0.5218
$P_{d.C}$	0.3008
$P_{e.d}$	0.2380
$P_{g.F}$	0.5560
$P_{i.h}$	
$P'_{s.t}$	0.2616
$P'_{C'.s}$	0.5637
$P'_{d.C'}$	0.2506
$P'_{e.d}$	0.2356
$P'_{g.F'}$	0.4931
$P'_{i.h}$	

Deviation of Rel. Partial Dispersion ΔP from "Normal Line"	
$\Delta P_{C.t}$	0.0158
$\Delta P_{C.s}$	0.0082
$\Delta P_{F.e}$	-0.0022
$\Delta P_{g.F}$	-0.0079
$\Delta P_{i.g}$	

Other Properties	
$\alpha_{-30/+70°C}[10^{-6}/K]$	6.2
$\alpha_{+20/+300°C}[10^{-6}/K]$	7.2
Tg[°C]	663
$T_{10}^{13.0}$[°C]	646
$T_{10}^{7.6}$[°C]	724
c_p[J/(g·K)]	
λ[W/(m·K)]	
ρ[g/cm³]	4.34
E[10^3N/mm²]	126
µ	0.294
K[10^{-6}mm²/N]	1.42
$HK_{0.1/20}$	780
HG	2
B	1
CR	1
FR	1
SR	51.3
AR	1
PR	1.3

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