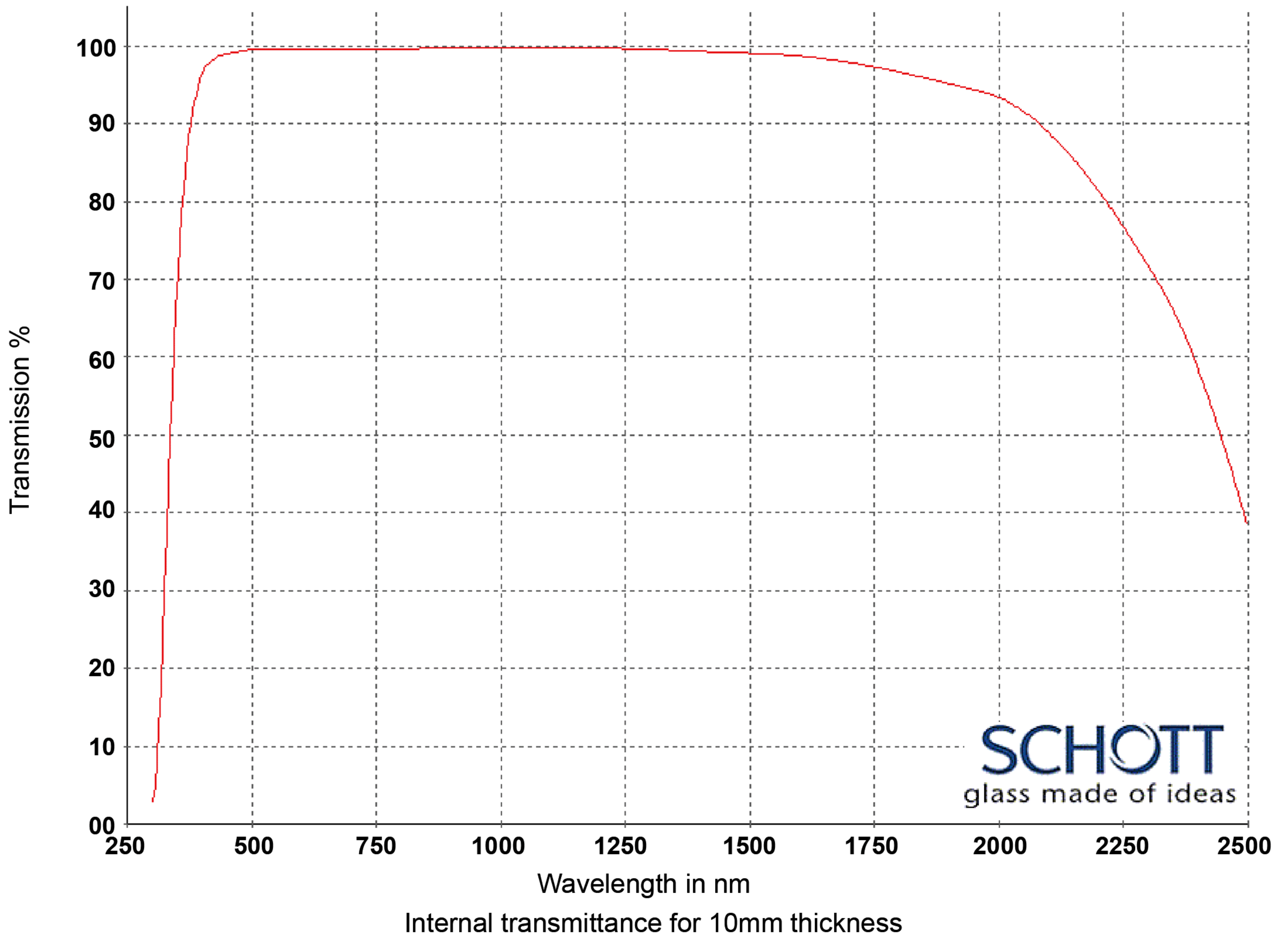


Title: Optical Glasses - 250-2500nm
 Material: SCHOTT N-LAK33 for 250nm - 2500 transmission
 Range: OPG - N-LAK33



WAVELENGTH	BASF51 (T%)
2500 nm	0.380
2325 nm	0.690
1970 nm	0.940
1530 nm	0.990
1060 nm	0.998
700 nm	0.996
660 nm	0.996
620 nm	0.996
580 nm	0.996
546 nm	0.996
500 nm	0.995
460 nm	0.991
436 nm	0.987
420 nm	0.981
405 nm	0.971
400 nm	0.963
390 nm	0.940
380 nm	0.910
370 nm	0.860
365 nm	0.830
350 nm	0.690
334 nm	0.460
320 nm	0.210
310 nm	0.080
300 nm	0.020
290 nm	0.000
280 nm	0.000
270 nm	0.000
260 nm	0.000
250 nm	0.000

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.71280
$n_{1970.1}$	1970.1	1.72051
$n_{1529.6}$	1529.6	1.72862
$n_{1060.0}$	1060.0	1.73698
n_t	1014.0	1.73794
n_s	852.1	1.74193
n_r	706.5	1.74714
n_C	656.3	1.74962
$n_{C'}$	643.8	1.75031
$n_{632.8}$	632.8	1.75096
n_D	589.3	1.75385
n_d	587.6	1.75398
n_e	546.1	1.75740
n_F	486.1	1.76400
$n_{F'}$	480.0	1.76482
n_g	435.8	1.77187
n_h	404.7	1.77843
n_i	365.0	1.78967
$n_{334.1}$	334.1	1.80187
$n_{312.6}$	312.6	
$n_{296.7}$	296.7	
$n_{280.4}$	280.4	
$n_{248.3}$	248.3	

Internal Transmittance τ_i

λ [nm]	τ_i [10 mm]	τ_i [25 mm]
2500	0.38	0.09
2325	0.69	0.40
1970	0.940	0.85
1530	0.990	0.975
1060	0.998	0.995
700	0.996	0.991
660	0.996	0.990
620	0.996	0.990
580	0.996	0.990
546	0.996	0.990
500	0.995	0.987
460	0.991	0.977
436	0.987	0.967
420	0.981	0.954
405	0.971	0.930
400	0.963	0.910
390	0.940	0.86
380	0.910	0.79
370	0.86	0.69
365	0.83	0.63
350	0.69	0.40
334	0.46	0.14
320	0.21	0.02
310	0.08	
300	0.02	
290		
280		
270		
260		
250		

Relative Partial Dispersion

$P_{s,t}$	0.2776
$P_{C,s}$	0.5342
$P_{d,C}$	0.3033
$P_{e,d}$	0.2383
$P_{g,F}$	0.5473
$P_{i,h}$	0.7818
$P'_{s,t}$	0.2751
$P'_{C's}$	0.5773
$P'_{d,C'}$	0.2528
$P'_{e,d}$	0.2362
$P'_{g,F'}$	0.4857
$P'_{i,h}$	0.7748

Constants of Dispersion Formula

B_1	$1.45796869 \cdot 10^{+00}$
B_2	$5.55403936 \cdot 10^{-01}$
B_3	$1.19938794 \cdot 10^{+00}$
C_1	$6.80545280 \cdot 10^{-03}$
C_2	$2.25253283 \cdot 10^{-02}$
C_3	$8.27543327 \cdot 10^{+01}$

Constants of Formula dn/dT

D_0	$2.57 \cdot 10^{-06}$
D_1	$1.16 \cdot 10^{-08}$
D_2	$-7.29 \cdot 10^{-11}$
E_0	$6.01 \cdot 10^{-07}$
E_1	$1.59 \cdot 10^{-10}$
$\lambda_{TK}[\mu m]$	0.114

Color Code

λ_{80}/λ_5	39/32
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Remarks

Temperature Coefficients of Refractive Index

[°C]	$\Delta n_{rel}/\Delta T [10^{-6}/K]$			$\Delta n_{abs}/\Delta T [10^{-6}/K]$		
	1060.0	e	g	1060.0	e	g
-40/-20	3.1	4.1	5.0	0.8	1.7	2.5
+20/+40	3.4	4.4	5.3	1.9	2.9	3.7
+60/+80	3.3	4.4	5.2	2.2	3.2	4.0

Deviation of Rel. Partial Dispersion

ΔP from "Normal Line"

$\Delta P_{C,t}$	0.0182
$\Delta P_{C,s}$	0.0091
$\Delta P_{F,e}$	-0.0024
$\Delta P_{g,F}$	-0.0083
$\Delta P_{i,g}$	-0.0466

Other Properties

$\alpha_{-30/+70^\circ C} [10^{-6}/K]$	6.0
$\alpha_{+20/+300^\circ C} [10^{-6}/K]$	7.0
$T_g [^\circ C]$	652
$T_{10}^{13.0} [^\circ C]$	648
$T_{10}^{7.6} [^\circ C]$	
$c_p [J/(g \cdot K)]$	0.554
$\lambda [W/(m \cdot K)]$	0.900
$\rho [g/cm^3]$	4.26
$E [10^3 N/mm^2]$	124
μ	0.291
$K [10^{-6} mm^2/N]$	1.49
$HK_{0.1/20}$	780
HG	2
B	1
CR	1
FR	1
SR	51.3
AR	1
PR	2.3