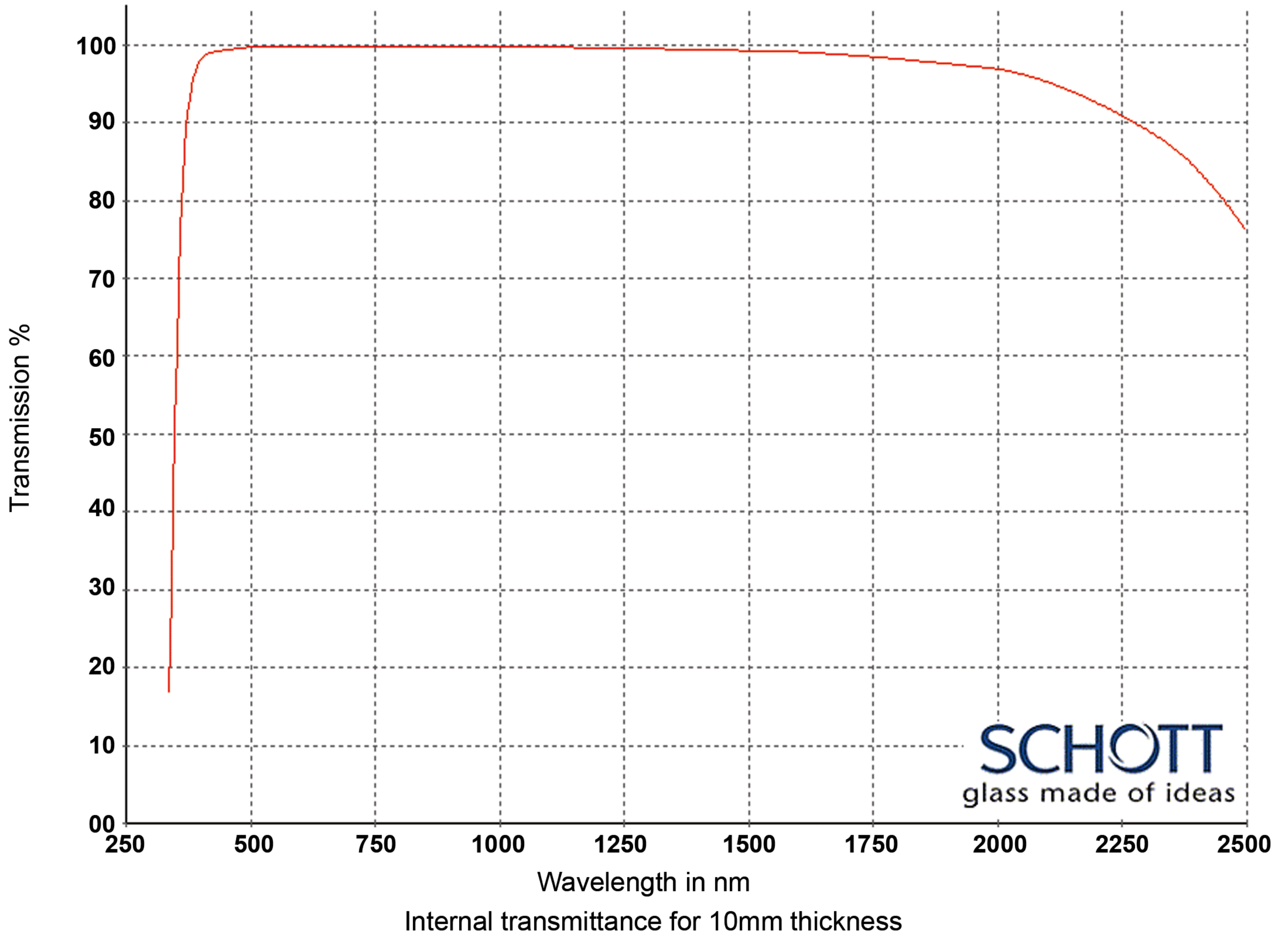




KNIGHT OPTICAL

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Title: Optical Glasses - 250-2500nm
Material: SCHOTT N-SSK2 for 250nm - 2500 transmission
Range: OPG - N-SSK2



WAVELENGTH	BASF51 (T%)
2500 nm	0.760
2325 nm	0.880
1970 nm	0.971
1530 nm	0.992
1060 nm	0.997
700 nm	0.998
660 nm	0.998
620 nm	0.997
580 nm	0.998
546 nm	0.998
500 nm	0.997
460 nm	0.994
436 nm	0.992
420 nm	0.990
405 nm	0.985
400 nm	0.981
390 nm	0.967
380 nm	0.940
370 nm	0.890
365 nm	0.850
350 nm	0.570
334 nm	0.080
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

Refractive Indices

	λ [nm]	
$n_{2325.4}$	2325.4	1.59149
$n_{1970.1}$	1970.1	1.59685
$n_{1529.6}$	1529.6	1.60260
$n_{1060.0}$	1060.0	1.60880
n_t	1014.0	1.60953
n_s	852.1	1.61264
n_r	706.5	1.61678
n_C	656.3	1.61877
$n_{C'}$	643.8	1.61933
$n_{632.8}$	632.8	1.61985
n_D	589.3	1.62219
n_d	587.6	1.62229
n_e	546.1	1.62508
n_F	486.1	1.63045
$n_{F'}$	480.0	1.63112
n_g	435.8	1.63691
n_h	404.7	1.64232
n_i	365.0	1.65166
$n_{334.1}$	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	$1.43060270 \cdot 10^{+00}$
B_2	$1.53150554 \cdot 10^{-01}$
B_3	$1.01390904 \cdot 10^{+00}$
C_1	$8.23982975 \cdot 10^{-03}$
C_2	$3.33736841 \cdot 10^{-02}$
C_3	$1.06870822 \cdot 10^{+02}$

Constants of Formula dn/dT

D_0	$5.21 \cdot 10^{-06}$
D_1	$1.34 \cdot 10^{-08}$
D_2	$-1.01 \cdot 10^{-11}$
E_0	$5.21 \cdot 10^{-07}$
E_1	$5.87 \cdot 10^{-10}$
$\lambda_{TK}[\mu m]$	0.199

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	4.2	5.0	5.8	2.1	2.8	3.5
+20/+40	4.3	5.2	6.1	2.9	3.8	4.6
+60/+80	4.5	5.5	6.4	3.5	4.4	5.3

Internal Transmittance τ_i

λ [nm]	τ_i [10 mm]	τ_i [25 mm]
2500	0.76	0.50
2325	0.88	0.72
1970	0.971	0.930
1530	0.992	0.981
1060	0.997	0.992
700	0.998	0.996
660	0.998	0.994
620	0.997	0.993
580	0.998	0.995
546	0.998	0.995
500	0.997	0.992
460	0.994	0.985
436	0.992	0.980
420	0.990	0.975
405	0.985	0.963
400	0.981	0.954
390	0.967	0.920
380	0.940	0.86
370	0.89	0.75
365	0.85	0.67
350	0.57	0.25
334	0.08	
320		
310		
300		
290		
280		
270		
260		
250		

Color Code

λ_{80}/λ_5	37/33
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Remarks

Relative Partial Dispersion

$P_{s,t}$	0.2661
$P_{C,s}$	0.5246
$P_{d,C}$	0.3016
$P_{e,d}$	0.2381
$P_{g,F}$	0.5526
$P_{i,h}$	0.7997
$P'_{s,t}$	0.2636
$P'_{C's}$	0.5669
$P'_{d,C'}$	0.2513
$P'_{e,d}$	0.2358
$P'_{g,F'}$	0.4902
$P'_{i,h}$	0.7920

Deviation of Rel. Partial Dispersion

ΔP from "Normal Line"

$\Delta P_{C,t}$	-0.0069
$\Delta P_{C,s}$	-0.0025
$\Delta P_{F,e}$	-0.0001
$\Delta P_{g,F}$	-0.0016
$\Delta P_{i,g}$	-0.0146

Other Properties

$\alpha_{-30/+70^\circ C} [10^{-6}/K]$	5.8
$\alpha_{+20/+300^\circ C} [10^{-6}/K]$	6.7
Tg[°C]	653
$T_{10}^{13.0} [^\circ C]$	655
$T_{10}^{7.6} [^\circ C]$	801
$c_p [J/(g \cdot K)]$	0.580
$\lambda [W/(m \cdot K)]$	0.810
$\rho [g/cm^3]$	3.53
$E [10^3 N/mm^2]$	82
μ	0.261
$K [10^{-6} mm^2/N]$	2.51
HK _{0.1/20}	570
HG	3
B	1
CR	1
FR	0
SR	1.2
AR	1
PR	1