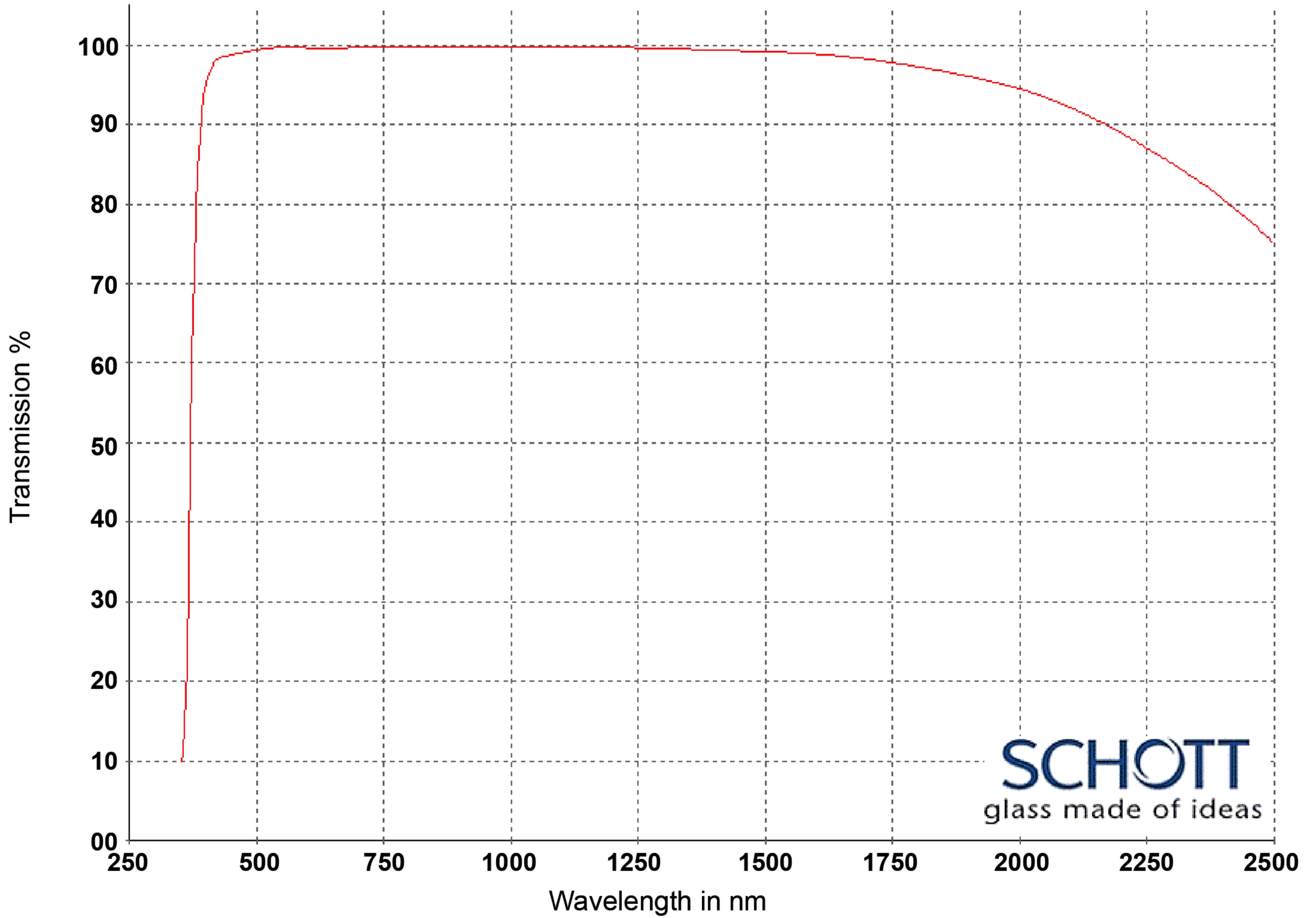




KNIGHT OPTICAL

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Title: Optical Glasses - 250-2500nm  
Material: Schott N-F2 for 250nm - 2500 transmission  
Range: OPG - N-F2



Internal transmittance for 10mm thickness

WAVELENGTH	N-F2 (T%)
2500 nm	0.750
2325 nm	0.840
1970 nm	0.950
1530 nm	0.991
1060 nm	0.998
700 nm	0.997
660 nm	0.996
620 nm	0.996
580 nm	0.997
546 nm	0.997
500 nm	0.994
460 nm	0.989
436 nm	0.985
420 nm	0.980
405 nm	0.959
400 nm	0.950
390 nm	0.890
380 nm	0.760
370 nm	0.480
365 nm	0.280
350 nm	0.100
334 nm	0.000
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 the data, Knight Optical (UK) Ltd can take no responsibility for its accuracy.

### Refractive Indices

	$\lambda$ [nm]	
$n_{2325.4}$	2325.4	1.58136
$n_{1970.1}$	1970.1	1.58744
$n_{1529.6}$	1529.6	1.59410
$n_{1060.0}$	1060.0	1.60167
$n_t$	1014.0	1.60261
$n_s$	852.1	1.60667
$n_r$	706.5	1.61229
$n_C$	656.3	1.61506
$n_{C'}$	643.8	1.61584
$n_{632.8}$	632.8	1.61658
$n_D$	589.3	1.61990
$n_d$	587.6	1.62005
$n_e$	546.1	1.62408
$n_F$	486.1	1.63208
$n_{F'}$	480.0	1.63310
$n_g$	435.8	1.64209
$n_h$	404.7	1.65087
$n_i$	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	

### Internal Transmittance $\tau_i$

$\lambda$ [nm]	$\tau_i$ [10 mm]	$\tau_i$ [25 mm]
2500	0.75	0.48
2325	0.84	0.64
1970	0.950	0.88
1530	0.991	0.977
1060	0.998	0.996
700	0.997	0.992
660	0.996	0.990
620	0.996	0.991
580	0.997	0.993
546	0.997	0.992
500	0.994	0.984
460	0.989	0.973
436	0.985	0.963
420	0.980	0.950
405	0.959	0.900
400	0.950	0.87
390	0.89	0.75
380	0.76	0.51
370	0.48	0.16
365	0.28	0.04
350	0.10	
334		
320		
310		
300		
290		
280		
270		
260		
250		

### Relative Partial Dispersion

$P_{s,t}$	0.2389
$P_{C,s}$	0.4925
$P_{d,C}$	0.2935
$P_{e,d}$	0.2366
$P_{g,F}$	0.5881
$P_{i,h}$	
$P'_{s,t}$	0.2356
$P'_{C's}$	0.5312
$P'_{d,C'}$	0.2440
$P'_{e,d}$	0.2334
$P'_{g,F'}$	0.5208
$P'_{i,h}$	

### Deviation of Rel. Partial Dispersion

$\Delta P$ from "Normal Line"	
$\Delta P_{C,t}$	0.0137
$\Delta P_{C,s}$	0.0047
$\Delta P_{F,e}$	0.0006
$\Delta P_{g,F}$	0.0056
$\Delta P_{i,g}$	

### Constants of Dispersion Formula

$B_1$	$1.39757037 \cdot 10^{+00}$
$B_2$	$1.59201403 \cdot 10^{-01}$
$B_3$	$1.26865430 \cdot 10^{+00}$
$C_1$	$9.95906143 \cdot 10^{-03}$
$C_2$	$5.46931752 \cdot 10^{-02}$
$C_3$	$1.19248346 \cdot 10^{+02}$

### Constants of Formula $dn/dT$

$D_0$	$4.62 \cdot 10^{-07}$
$D_1$	$1.17 \cdot 10^{-08}$
$D_2$	$-2.35 \cdot 10^{-11}$
$E_0$	$7.47 \cdot 10^{-07}$
$E_1$	$9.81 \cdot 10^{-10}$
$\lambda_{TK}[\mu m]$	0.263

### Color Code

$\lambda_{80}/\lambda_5$	39/36
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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	2.0	3.2	4.6	-0.1	1.0	2.3
+20/+40	2.1	3.5	5.1	0.7	2.0	3.6
+60/+80	2.2	3.7	5.5	1.1	2.6	4.4

### Other Properties

$\alpha_{-30/+70^\circ C} [10^{-6}/K]$	7.8
$\alpha_{+20/+300^\circ C} [10^{-6}/K]$	9.1
Tg[°C]	566
$T_{10}^{13.0} [^\circ C]$	565
$T_{10}^{7.6} [^\circ C]$	688
$c_p [J/(g \cdot K)]$	0.810
$\lambda [W/(m \cdot K)]$	1.050
$\rho [g/cm^3]$	2.65
$E [10^3 N/mm^2]$	82
$\mu$	0.228
$K [10^{-6} mm^2/N]$	3.03
HK <sub>0.1/20</sub>	600
HG	2
B	1
CR	1
FR	0
SR	1
AR	1
PR	1